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Editor :
S. S. Barlingay



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Indian Philosophical Quarterly

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PUBLICATION NOTICE

It gives us great pleasure to announce to our writers, subscribers and readers in general that it has been decided to revive The Philosophical Quarterly, the journal of the Indian Institute of Philosophy, Amalner. The publication of this journal was suspended some seven years ago, under extremely difficult circumstances which were beyond our control. The last number published was **Vol. XXXIX, No. 2, July, 1966** after which no number could be issued. The temporary closure had to be effected precipitately and without previous announcement and so the news had to be conveyed individually to all those concerned. This came as an unpleasant surprise to all lovers of Philosophy. We received numerous suggestions and pressing requests from all quarters of India and abroad to revive the publication of the journal at any cost. Some members of the teaching staff in India wrote to us that this journal had played a leading role in training generations of philosophers during its long and sustained career. Some foreigners wrote to us that it was a unique journal of Philosophy because all shades of opinion found place in it and as such its publication should continue, if not by the Institute of Philosophy, by any university or even by the Philosophical Congress itself.

After the closure of the Quarterly, we took early steps to return the unused portion of the subscription to all those to whom it was due. But this we could do only in case of our Indian subscribers. For want of necessary permission from The Reserve Bank of India, we could not return the amount due to our foreign subscribers. In some cases the account was cleared by sending back-numbers of the Quarterly and other publications of an equivalent value. But those who insisted on monetary repayment remained unpaid because of our helplessness in the matter. But we promised to credit the amount due to them and take it into consideration whenever the Quarterly would be revived and most certainly we mean to abide by our promise.

In the meanwhile, the parent Institute itself had to pass

through a trying ordeal. After the demise of its founder, Sri. Pratapseth, the Institute had to face financial and other difficulties. Finding themselves unable to run the Institute properly, its trustees thought it fit to hand it over, for its smooth running, to the University of Poona which was glad to take it over. Then followed the inevitable time-consuming legal procedure concerning the act of transfer. At long last the deed of transfer was effected on the 28th of June, 1972. As per wishes of the trustees, it was decided to give a new name to the Institute so as to perpetuate the memory of its founder-president Sri. Pratapseth. The University also decided to revive The Philosophical Quarterly and sanctioned the necessary amount for this purpose. It is decided that the revived journal be named "Indian Philosophical Quarterly" and its volumes be numbered anew. This first issue is, therefore, numbered as "Volume-I, Number - 1" (New Series). Dr. S. S. Barlingay, Professor and Head of the Department of Philosophy in the University of Poona, is now appointed the Editor of the journal.

Indian Philosophical Quarterly is devoted to the promotion of discussions and understanding of basic philosophical problems. Not committed to any school, it welcomes independent philosophical researches, irrespective of authors' commitments. With this end in view, we invite the hearty co-operation all those interested in Philosophy. We request our old writers as well as new ones to contribute articles of enduring value for which some honorarium is proposed to be given. We also invite individuals and Institutions to subscribe to the journal. We will also welcome books for review and acknowledgement.

Editor

IMPERATIVE INFERENCE

A TOPIC which has been widely discussed in recent philosophy is the logic of practical reasoning. If theoretical reasoning is argument whose purpose is to answer the question "what is the case?", practical reasoning may be characterised as argument whose purpose is to answer the question "what is to be done?" Now just as theoretical logic attempts to formulate rules in accordance with which we may in theoretical reasoning pass from true premises to true conclusions, so the task of practical logic may be said to be to formulate rules in accordance with which we may pass from premises to conclusions about what is to be done. That there is such a thing as practical reasoning seems to be generally recognised, though occasionally one does come across a philosopher who denies a **specific kind** of practical inference (as, for example, Professor R. B. O. Williams, who denies that there is in general such a thing as **imperative** inference); but there is no general agreement about the logical principles involved in it. Some have maintained that practical logic is isomorphic with theoretical logic, while others are of opinion that practical reasoning has a logic of its own which is more or less widely different from theoretical logic. I propose in this paper to take a brief survey of the arguments and counter-arguments in one part of this rather wide area, and while I cannot presume to settle any issues or make a new contribution in this very obscure sphere, I hope to derive at least the kind of advantage which a wide view usually gives.

I

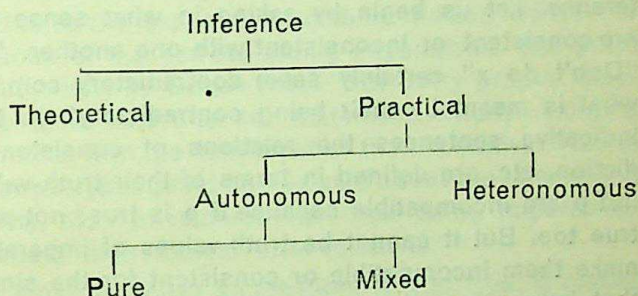
Practical reasoning we have broadly characterised as reasoning aimed at answering the question "what is to be done?" Its conclusion is an answer to this question. We can also say alternatively that practical reasoning is reasoning whose conclusion is a practical sentence. A practical sentence may be defined as one whose normal and primary use

is to tell somebody (who may be oneself) what [to] do. Now there are various ways of telling somebody what he is to do, and there are correspondingly various kinds of practical sentences. There are, to begin with, sentences in the imperative mood, uttered to issue straightforward commands. Then there are "should"-sentences used for giving counsel, "ought"-sentences used for giving moral advice, and "must"-sentences used for telling what is indispensable for the satisfaction of certain purposes. Finally there are sentences in the optative mood which perhaps stand at the other end of the scale as being the least practical, expressing as they do merely wishes. All these different kinds of practical sentences can be regarded as standing in the conclusion's place in a practical reasoning, and by standing there making the reasoning practical.

Several questions arise with regard to such reasoning. (1) On the analogy of theoretical reasoning we naturally think of practical reasoning as consisting of premises and conclusion and of the latter as following from the former. Now in theoretical reasoning both the premises and the conclusion are propositions, and in a valid inference the conclusion follows from the premises in the sense that if the premises are true, the conclusion cannot be false. Thus the relation of **following from** is defined in terms of truth and falsity of premises and conclusion. Now a difficulty which arises in the case of practical reasoning is that its conclusion, and usually also one or more of its premises, are practical sentences, and practical sentences are obviously neither true nor false. So how are we to understand the following of a conclusion from premises in a practical inference? (2) Another question which is also very important, and which has been discussed a good deal recently, is about the premises of a practical argument. Must all the premises of a practical argument be practical, or may some or all of them be theoretical? On this question two diametrically opposed positions have been taken up and defended by philosophers, one group maintaining that a practical conclusion cannot be inferred from premises at least one of which is not practical, and the other group maintaining that this is possible. R. M. Hare, who may be

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taken as a representative of the first group, has stated a rule of imperative inference thus: "No imperative conclusion can validly be drawn from a set of premises which does not contain at least one imperative."¹ (This has been called the principle of the **autonomy of practical discourse**.) There would then be two kinds of practical inference according to the autonomists; (i) **pure** practical inference, in which both the premises and the conclusion are practical sentences and (ii) mixed practical inference, in which the premises are both practical and theoretical. All these inferences may be arranged in a tabular form thus:



Another division of practical inference should be here mentioned. We saw above that practical sentences are of various kinds, ranging from imperative sentences at one end of the scale to optative sentences at the other, with "should"-, "ought"-, and "must"-sentences coming in between. Now practical inference may be divided on the basis of what kind of practical sentences occur as premises and conclusions in it. One kind of practical inference will then be **Imperative Inference**, i.e. inference in which an imperative is inferred from one or more imperatives. Next there will be what is called **Deontic Inference** in which "deontic" sentences, i.e. "ought" sentences and their variants appear as premises and conclusion. Similarly there will be kinds of inferences in which either "should"-sentences or "must"-sentences appear as premises and conclusions. Each of these kinds of practical inference has received attention, and there have arisen consequently a number of "logics" (e.g. imperative logic,

deontic logic, etc.) corresponding to the different kinds of practical inference mentioned above.

In what follows I propose to confine myself entirely to the logic of imperatives.

II

Now a doubt has been expressed by some philosophers whether there is such a thing as imperative inference. They grant that imperatives do have certain logical relations to one another, such as consistency, inconsistency, contradiction, etc., but they think that this is not enough for imperative inference. Let us begin by asking in what sense imperatives are consistent or inconsistent with one another. "Do x" and "Don't do x" certainly seem contradictory commands; but what is meant by their being contradictory? In the case of indicative sentences the relations of consistency, contradiction, etc. are defined in terms of their truth-values; p and not-p are incompatible because if p is true; not-p cannot be true too. But it cannot be truth-values of imperatives which make them incompatible or consistent for the simple reason that imperatives do not have truth-values at all. How then are we to conceive of these relations in respect of imperatives? One answer which has been given is that corresponding to every imperative sentence there is a second-person future-tense indicative sentence, and that the logical relations of imperatives are derived from these corresponding indicative sentences. Thus corresponding to the imperative "Post this letter", there is the second-person future-tense indicative sentence "You will post this letter". The idea of this correspondence can be brought out clearly with the help of a useful distinction made by Hare between what he called the "phrastics" and the "neustics" of imperative and indicative sentences.² The phrastic of a sentence is the descriptive content of that sentence, whether the sentence is indicative or imperative. "Post the letter" and "You will post the letter" both have a common descriptive content, viz. "your posting the letter in the immediate future." What the two sentences differ in is their mood, which is indicated

in English by a different word-order and by the addition or omission of a word or words. In a formal representation the two moods could be indicated by two distinct signs, either verbal or non-verbal, which may be called "mood-indicators". Hare calls these mood-indicators "neustics", and uses the words "please" and "yes" for the imperative and the indicative moods respectively. Our two sentences would become in this formal representation (1) "Your posting the letter in the immediate future please" and (2) "Your posting the letter in the immediate future, yes." It is now clear how, given an imperative sentence we can obtain a corresponding indicative sentence. Since indicative sentences have truth-values, they have logical relations too, and from them we can derive the logical relations of the corresponding imperatives. The point has been put briefly by Geach thus: "For every proper imperative, there is a future-tense statement whose 'coming true' is identical with the fulfilment of the imperative. This is the source of everything that can be said about the inferability, incompatibility, etc. of imperatives; their being imperatives does not affect their logical inter-relations."³

This is a most attractive suggestion. If it is true, it makes imperative logic completely parallel to indicative logic. According to it, corresponding to every imperative inference there is an indicative inference, and the validity or the invalidity of the former is derived from the validity or the invalidity of the latter. Unfortunately this suggestion breaks down in some cases at least. There are imperative arguments which seem to be patently invalid, though their indicative parallels are perfectly valid. Consider the following pair of arguments :

- (la) Post this letter. So post this letter or burn this letter.
- (lb) You will post this letter. So you will post this letter or burn this letter.

It is clear that (lb) is perfectly valid; it is the valid argument-form of truth-functional logic; "p; therefore p or q." But it is equally clear (at least intuitively) that (la) is invalid. A person who gives the command "Post this letter" can hardly be said to be giving by implication the command "Post this letter or burn this letter", for it is possible for the addressee to

fulfil the conclusion of this inference by burning the letter and to disobey the premise. Or consider another pair of arguments:

(2a) Vote for the Labour candidate. So vote for somebody.

(2b) You will vote for the Labour candidate. So you will vote for somebody.

Here too the indicative inference (2b) is valid; it is the valid argument form of quantificational logic; $Fa \therefore (Ex) (Fx)$. But the imperative inference (2a) looks obviously invalid, for the person issuing the command "Vote for the Labour candidate" is not implicitly issuing the command "Vote for somebody". The addressee can obey the inferred command by voting for the Conservative candidate and thus disobey the premise. This failure of correspondance in respect of validity between indicative and imperative inference destroys whatever plausibility Geach's suggestion might at first sight appear to have. And in fact in a later paper he himself expressly rejected it.⁴ He points out that the reason why an imperative inference and the corresponding indicative inference are not always both valid or both invalid is to be traced to the very different ways in which imperatives and indicatives are related to the world. Miss Anscombe has put this point very well.⁵ She gives the example of a shopping list given to a man by his wife, and of another list drawn up by a detective following the man and making a report of his activities. She brings out the difference between the two lists thus: If there is a discrepancy between the shopping list (order) and the purchases, the mistake is in the purchases; but if the discrepancy lies between the detective's list (report) and the purchases, the mistake is in the list. In the case of an order it is the facts which have to conform to the order; but in the case of a report, it is the report which has to conform to the facts. When a prediction does not come true, it is the prediction which is at fault; but when an order is not fulfilled, it is person commanded whom we take to task. How does this account of the relationship between a command and the state of affairs commanded, on the one hand, and between a statement and the state of affairs described, on the other,

throw light on the lack of parallelism between indicative and imperative inference? The matter seems to be somewhat as follows. The point of an imperative is to get somebody to **bring about** a state of affairs which does not already exist, but which one **wants** brought about; the point of a statement is to describe or report a state of affairs which exists or will exist irrespectively of whether one wants it or not. Now, to take one of the above examples, voting for Labour is related to voting for somebody as something more determinate to something less determinate. If a state of affairs can be truly described in a comparatively determinate manner, a less determinate description of it is equally true of it, and the latter can therefore be inferred from the former. (E. g. if it is true that x is a man, then it is also true that x is an animal.) But if a determinate state of affairs is what I **want**, then I cannot be said to want a state of affairs described in less determinate terms. The reason for this is that the less determinate description will equally fit another state of affairs which is different from and incompatible with the state of affairs which I want. That is why we can pass from a more determinate **statement** to a less determinate one without falling into error, but we cannot pass from a more determinate command to a less determinate one. In fact the relation of inferability between commands is the converse of the relation of inferability between statements: we can pass from a less determinate command to a more determinate one. (But of this more presently. See Section IV below.)

III

Now these and similar difficulties have led some philosophers to deny that there is such a thing as imperative inference at all. B. A. O. Williams, e.g., argues in a paper entitled "Imperative Inference" that "while imperatives have some logical relations, there is not in general anything that can be called imperative inference."⁶ He takes as his examples two imperative argument-forms modelled on two argument-forms of truth-functional logic, and gives reasons why considered as inferences they must be disqualified. His first example is

(3a) Do x or do y; do not do x; so do y. which corresponds to the truth-functional schema

(3b) p or q; not p; so q.

With regard to (3a) he argues that it cannot be construed as an inference because its premises are mutually inconsistent. He begins by asking what the function of such an imperative as "Do x or do y" is. "One function it has", he says, "as opposed to the simple imperatives 'do x' or 'do y', is to give the recipient of the command a choice of what he is to do—it allows him some latitude in its obedience...Such a command permits the agent not to do x, so long as he does y, and permits him not to do y, so long as he does x. Thus the notion of such a command introduces the notion of permission—permission implicitly given or admitted by the commander. However this is not all that is to be said about the **permissive presuppositions** (as I shall call them) of this command. For it is clear that the conditional permissions already identified, viz 'I permit you not to do x, if you do y' and 'I permit you not to do y, if you do x' would not in fact constitute genuine permissions unless y and x, respectively, were themselves permitted." Now if we admit these permissive presuppositions of the disjunctive command, we can see, Williams says, why the schema (3a) cannot be construed as a pattern of inference. For the first premise "Do x or do y" presupposes permission to do x, but the second premise "Do not do x" obviously denies this permission. The speaker when he goes on to the second command has **changed his mind** or gone back on what he had first said. "This destroys any resemblance of this sequence of commands to an inference; it is essential to the idea of an inference q from a set of premises P that in reaching q, the speaker should not go back on or change his mind about any of the members of P—the form of an inference is 'given P, q'."⁸

Williams makes the same point with the help of his other example (which happens to be the same pair of argument-forms (1a) and (1b) which we considered in the last section), viz

(1a) Do x; so do x or y

which is parallel to the truth-functional valid schema

(1b) p; so p or q.

Here the permissive presuppositions of the conclusion are inconsistent with the premise, for the conclusion permits the recipient of the command not to do *x*, whereas the premise by categorically asking him to do *x* withholds permission not to do *x*. Once again the inconsistency has to be interpreted as change of mind on the part of the commander. Williams therefore concludes that "when we examine the function of disjunctive commands, we see an objection to construing the schema (D2) [our schema (1a)] as anything that could be called a pattern of inference."⁹

Several discussions of this article by Williams have appeared and the writers of those discussions have found fault with his arguments. They all disagree with his stronger conclusion that there is no such thing as imperative inference, and most of them also disagree with the weaker conclusion (not actually drawn, but implied) that imperative inference, if it exists, cannot be isomorphic with indicative inference. By far the most considerable of these discussions is R. M. Hare's article "Some Alleged Differences between Imperatives and Indicatives",¹⁰ in which he maintains that the reasons which philosophers have for alleging differences between imperative and ordinary logic are based on misunderstandings. Hare's examination of these reasons is divided by him into two parts, and I shall be mainly concerned to expound and examine only the first of these which deals almost exclusively with Williams's arguments. These arguments, according to Hare, are based on certain misunderstandings which can be removed "by a straightforward application of Mr Grice's recent work on what he calls 'implicatures'.¹¹ Grice's view has been summarised by Hare as follows: "There is a set of general conventions which have to be observed if communication is to work and misunderstandings, disharmonies and other failures of communication are to be avoided...The existence of these conventions means that, if we say some things, in some contexts, we imply (or, to adopt Grice's term, 'conversationally implicate') certain other things which we have left unsaid."¹² Grice has given several examples of such implications, but the one which is relevant for our purpose is the following. "If someone says 'My wife is either in the kitchen

or in the bedroom' it would normally be implied that he did not know in **which** of the two rooms she was."¹³ It is clear that this implication is different from entailment; one cannot say, e.g., that "My wife is in the kitchen or in the bedroom" **entails** "I do not know in which of the two rooms she is". Grice calls this kind of implication "implicature" or "conversational implicature". (I say this on the authority of Hare, for in the only paper cited by Hare I do not find these expressions used anywhere. I surmise that Grice wrote again on this topic and that these expressions were introduced by him then.) Now how does this concept of conversational implicature help Hare to meet the arguments of Williams? It helps in the following way. Hare points out that the validity of the indicative inference "p; so p or q" is not affected by the fact that the conversational implicatures of the premise and the conclusion are inconsistent. The assertion of "p" implies that the speaker believes "p" to be true, whereas the assertion of the conclusion "p or q" implies that the speaker is ignorant of the truth-values of the disjuncts. But "we do not commonly hear it argued that the inference from 'p' to 'p or q' in the indicative mood is inadmissible because 'p' is inconsistent with a conversational implicature of 'p or q' ".¹⁴ Now if we could say that what Williams calls the "permissive presuppositions" of commands are really their conversational implicatures, then the fact that the permissive presuppositions of the premises conflict, or that the permissive presuppositions of the premise conflict with those of the conclusion, need not invalidate the inference from "Do x" to "Do x or y", or from "Do x or y, and Do not do x" to "Do y". If this could be done, Williams's arguments against the possibility of imperative inference (and similar arguments of others against the isomorphism of indicative and imperative logics) would be refuted.

What are we to say of this argument? It seems quite cogent at first sight. But a second look brings doubts.

Hare's defence of the isomorphist thesis may be summarised in the following question: If the fact that the conversational implicatures of disjunctive statements are inconsistent with those of either disjunct taken singly does not invalidate the

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inference from "p" to "p or q", why should a similar inference from "Do x" to "Do x or y" be rendered invalid by what seem to be conversational implicatures of commands? I welcome this formulation of the crucial question as regards the similarity or difference of indicatives and imperatives, for if there are some radical differences between the two, an attempt to answer the above question is sure to bring them out into the open.

Let us begin by considering carefully the indicative member of the pair of inferences under review. In Indicative logic, from "p", "p or q" can always be validly inferred because the logical connective "or" is so defined in this logic that if "p" is true, "p or q" must be true too. "p or q" is false if and only if both "p" and "q" are false, otherwise it is true; and since "p" is given true by the premise, the possibility of the falsity of "p or q" is ruled out. Two things become clear from this: (1) "or" is defined in terms of truth values, and (2) "valid inference" is also defined in terms of the truth-values of the premises and the conclusion. Whatever additional meaning (beyond that specified by the definition "or") a disjunctive statement has is relegated to the sphere of "conversational implicatures". Now when we come next to imperatives we immediately meet with an obstacle, for imperatives being incapable of having truth-values, both the notions of "or" and the notion of "valid inference" are left without a clear meaning. Unless we can define these notions clearly and satisfactorily, it is simply useless to enquire into the logical relations of disjunctive and simple imperatives. We have seen already that the question "what is to take the place of truth-values when we examine the logical relations of imperatives?" has exercised logicians a great deal; but according to Hare this enquiry is misguided. About Kenny's answer to this question,¹⁵ he says: "since there is nothing to correspond to truth in the case of commands, those who look for a kind of *ersatz* truth to form the basis of a logic of imperatives are looking in the wrong place."¹⁶ But if there is **nothing** in commands which corresponds to truth in propositions, what reason can we possibly have for holding that the logic of imperatives is isomorphic with that of indicatives? How are we to understand the

meaning of a disjunctive command or of one command being inferable from another? I do not find any reply to this question in Hare, and it is doubtful if he even considered it. But unless this question is first satisfactorily answered, we cannot ask whether what Williams calls the permissive presuppositions of commands are merely their conversational implicatures. We must therefore investigate the matter ourselves in order to be in a position to decide whether Williams's permissive presuppositions are Gricean implicatures.

We have already noted one very important difference between a command and a statement. A statement is modelled on reality and it claims to be true of reality. But a command is uttered in order that some state of affairs may be brought into being: here reality is to be modelled on a command. This is of the essence of a command. Which statement is true is determined by what is the case; but a command has reference to what is not the case, but what the commander wants to be the case. It therefore comes about that when the commander changes his mind about what he wants, he changes his commands. But a statement cannot change its truth-value. If it is true, it is eternally true, and if false, eternally false.

So much about commands in general. Let us now consider disjunctive commands. In issuing any command, I am asking somebody to do something. In issuing a disjunctive command what am I asking him to do? It is clear that I am asking him to do one of two actions, leaving it to him to choose which one he will. I am indifferent which of the two actions he chooses to do, so long as it is one of the two. And therefore the command "Do x or y" is inconsistent with the command "Do x" which categorically requires that x be done. But isn't there a similar situation in the case of indicatives? "p or q" says that at least one of the two propositions "p" and "q" is true without saying which one that is; and would not this be inconsistent with the premise "p"? The answer is that the cases are not similar because the truth-values of "p" and "q" are already determinate, and what is indeterminate is only our knowledge. So if "p" is true, then it cannot be false in "p or q", and therefore "p or q" is never inconsistent with "p". In the case of a disjunctive command "Do x or y", on the

other hand, what I want is really indeterminate; either action will equally meet my requirements. And therefore it is all the same to me if the recipient of the command does x and omits y, or does y and omits x. Thus it is part of the very meaning of a disjunctive command that it is really indeterminate as regards the alternative which the recipient of the command chooses for obeying. There is thus an irreducible asymmetry between indicatives and imperatives. What Williams calls the permissive presuppositions of commands are required to define them and cannot be ignored as mere implicatures which do not affect the validity of the inference into which they enter as premises or conclusions.

Hare's attempted refutation of Williams thus fails. But before we take leave of Hare, I should like to refer to two of his statements which tell us what imperative logic, according to him, does or is expected to do. About the "logic of satisfaction"¹⁷ Hare says: "A logic of satisfaction would still be an imperative logic in the sense that it would tell us how to know, when given a command, what other commands **must** necessarily be fulfilled if we are to fulfil the first command. And this is what we are looking for in most imperative inferences."¹⁸ This strikes me as a most perplexing statement. I entirely agree with Hare's reason for calling a logic of satisfaction a logic of imperatives, viz that it should tell us what other commands must necessarily be fulfilled if we are to fulfil a given command, but I am puzzled because the logic of satisfaction precisely does not do this. It tells us what other commands will be fulfilled if we fulfil a given command; but this is very different from telling us what commands must be fulfilled if we are to fulfil a given command. We should get into serious trouble if we thought that in order to fulfil the command "Post the letter" we must fulfil the command "Post the letter or burn it" which follows from it in the logic of satisfaction though we would be perfectly justified in thinking that by fulfilling the command "Post the letter" we would be necessarily fulfilling the command "Post the letter or burn it". And it is only this latter that the logic of satisfaction guarantees, not what Hare thinks (rightly) that an imperative logic should guarantee.

In another place (the concluding paragraph of his paper) Hare says: "What is needed, rather, is a logic which tells us what other things we are, implicitly, commanding when we give a certain command, just as ordinary logic tells us what other things we are, implicitly, asserting when we make a certain assertion. We want to be able to say: 'If you command that p, you are commanding, implicitly, that (at least) q'. For example, we want to be able to say: 'If you command that the letter be posted, you are commanding, implicitly, that it be at least posted or burnt'."¹⁹ Again I agree with Hare about the kind of logic we need; but I find it simply incomprehensible that when I command somebody to post a letter, I am implicitly commanding him at least to post it or burn it. This seems to be merely another case of a philosopher lapsing into nonsense in the espousal of a theory.

Now supposing that Hare's critique of Williams fails, does it follow that Williams is right in his denial of imperative inference? I do not think so. For though he does point out certain difficulties in admitting certain sequences of imperatives as inferences, this is by no means enough evidence for his sweeping conclusion that **in general** there is no such thing as imperative inference. Rescher and Robison in their discussion of Williams's paper²⁰ have pointed out that it is surprising that Williams should have based his case for the general impossibility of imperative inference on the consideration of disjunctive argument-forms alone, and should not have paid any attention to the far more plausible conjunctive and conditional argument-forms :

- (1) Do x and y; so do x
 - (2) Do x; do y; so do x and y
 - (3) Do x if you do y; do y if you do z; so do x-if you do z.
- Also the following disjunctive form:
- (4) Do x or y; so do y or x.

These argument-forms seem valid enough, at least some of them. (1) and (4) perhaps present difficulties; but there seems to be nothing wrong with (2) and (3). The proper conclusion to draw therefore would be, not that there is in general no imperative inference, but that there is no general parallelism between imperative and indicative logics. If we remember

that imperatives and indicatives are related to facts in very different ways, we should in fact expect to find a certain lack of parallelism. The examples given by Rescher and Robison are all modelled on schemata of indicative logic. But consider the following simple inferences:

(1) Do x or y ; so do x

(2) Do x or y ; so do y

I suggest that both these are valid, though their parallels in indicative logic are patently invalid. When the recipient of a disjunctive command chooses one of the disjuncts and obeys it, is he not inferring another command from the given command? He sees that the disjunctive commands offer him a choice, and so he chooses one of the disjuncts and obeys it. Even if he does not choose and obey one of the disjuncts, his seeing that it is indifferent which alternative he obeys so long as he obeys one of them, is certainly a case of seeing an implication. I therefore think that (1) and (2) are perfectly good examples of valid argument-forms. If they are valid, then we have enough evidence to prove both that imperative inference is possible, and that it is not isomorphic (at least not completely isomorphic) with indicative logic.

IV

We began by asking the question: What is to replace truth-values in imperative inference? and we have considered one answer to it, viz. the values which take the place of "true" and "false" are "satisfied" and "not satisfied." To say that an imperative is satisfied is simply to say that the state of affairs commanded is realised. We have seen that on this view the logic of imperatives is completely isomorphic with the logic of indicatives. And we have also seen that this logic (called by Kenny "logic of satisfaction") cannot be the whole logic of imperatives.

Kenny, in a most interesting paper entitled "Practical Inference"²⁰ starts at this point. If it is not "satisfaction" which is the property that is (or is to be) preserved in imperative inference, what property is it? Kenny suggests that the property we are looking for is what he calls "satisfactoriness".

He explains the notion of satisfactoriness thus. The primary purpose of practical discourse is to get done what we want done. If a command is one which will satisfy our purpose when fulfilled, then it is satisfactory for that purpose. When in imperative inference we pass from one imperative to another, it is this property which is to be preserved. In short we must never pass from an imperative which is satisfactory to one which is not satisfactory. The rules of imperative inference are intended to preserve satisfactoriness, and these rules constitute the "logic of satisfactoriness". This logic is very different from the logic of satisfaction, but it is nevertheless related to it in a most interesting and surprising manner. Their relationship turns out to be that of a thing and its mirror-image. That is to say, whenever the logic of satisfaction permits the inference from B to A, the logic of satisfactoriness permits the inference from A to B. This feature can be illustrated by a few simple examples. "Post the letter; therefore post the letter or burn the letter" is valid in the logic of satisfaction; but its mirror-image "Post the letter or burn the letter; therefore post the letter" is valid in the logic of satisfactoriness. Similarly the inference from "Vote for the Labour candidate" to "Vote for somebody" is valid in the logic of satisfaction, but its mirror-image "Vote for somebody, so vote for the Labour candidate" is valid in the logic of satisfactoriness.

Kenny says that "the logic of satisfactoriness, and not the logic of satisfaction, is the principal logic of imperatives."²¹ It will be noticed that Kenny does not say that the logic of satisfactoriness is **the** logic of imperatives, but merely that it is the **principal** logic of imperatives. This means that according to him imperative inference obeys the rules of two different logics. Can we lay down general rules in accordance with which we might find out which imperative inference is valid in one or the other logic? Kenny's answer is clear. There are imperative inferences which are valid in the logic of satisfaction. (Let us call this logic Logic 1.) These can be found out by checking them against corresponding inference-forms of theoretical logic. Now where an inference is valid in Logic 1, its mirror-image is valid in the logic of satisfactoriness (let

us call it Logic 2), and this too can be checked "by an appeal to truth-tables and quantificational truths" of assertoric of logic. "For instance, you wish to know whether $FKpq$ can be inferred from $FApq$. To test it whether can you write $CKpqApq$ and test for tautology in the usual manner."²² (The letter **F** in the above symbolic expressions is Kenny's mood-indicator for *fiats*, which may here be taken to be roughly (though not strictly) the same as imperatives. I should also mention that I have used the Roman letter **F** for the Gothic one used by Kenny.)

All this is of course very interesting, if true. It certainly seems to be true in some cases at least. But it may be doubted whether it is generally true. Consider, for example, the following inferences:

(A1) Post the letter; so post the letter or burn the letter.

(A2) Post the letter or burn the letter; so post the letter.

Kenny says that (A1) is valid in Logic 1, and so its mirror-image (A2) is valid in Logic 2. But the question which arises here is whether (A1) is valid at all. It certainly looks a very odd inference, as we have seen; and the fact that you invent a logic called the logic of satisfaction and define validity in it in such a way that any imperative inference which corresponds to a valid inference of future-tense indicatives becomes valid in it, does not alter the bizarre look of the imperative inference. We must remember that it was the counter-intuitive look of (A1) which drove Kenny to look for another logic. Unless we grant that (A1) is invalid, there is no reason to hunt for some property other than "satisfaction" to take the place of truth in imperative inference. On the other hand, if (A1) is invalid, and the logic of satisfaction makes it valid, the only conclusion which follows is that the logic of satisfaction is not the logic of imperatives at all. In this connection it is instructive to compare with (A1) the following inference:

(B1) Kill all conspirators, Brutus is a conspirator; so kill Brutus.

(A1), I have suggested, is patently invalid; but (B1) seems perfectly in order. If I am asked to kill all conspirators, then the only way to proceed to obey this order is by finding out who
IPQ...2

are the conspirators. Then being informed that Brutus is a conspirator, I infer the imperative "Kill Brutus" and proceed to kill him. This inference then seems perfectly sound. How does this inference fare in Logic 1 and Logic 2? It is obviously valid in Logic 1, for the corresponding future-tense indicative inference, "You will kill all conspirators, Brutus is a conspirator, so you will kill Brutus", is valid in assertoric logic. It must therefore be invalid in Logic 2 on Kenny's theory. But as a matter of fact it looks perfectly valid in Logic 2 too. If "Kill all conspirators" is satisfactory, then if Brutus is a conspirator, "Kill Brutus" must be satisfactory too. Kenny however considers this argument invalid on the ground that the order "Kill all conspirators" has not been fully obeyed by someone who obeys the order "Kill Brutus", unless Brutus is the only conspirator, which the premises do not entitle us to conclude.²³ This looks very much like special pleading; for Kenny supposes that the recipient of the command makes one inference with regard to Brutus and then stops, which we have no reason to suppose. On the other hand we naturally expect him to make similar inferences with regard to the rest of the conspirators till the last conspirator is tracked down. It is thus not right to say that the conclusion of (B1) is not satisfactory. But that is not the end of Kenny's troubles. By his own account another inference, the mirror-image of (B1) will be valid in Logic 2:

(B2) Kill Brutus; Brutus is a conspirator; so kill all conspirators.

But this inference will not do at all. Kenny does not consider it, so we do not know how he would have dealt with it. But it does seem to be a clear counter-example to his "mirror-image" theory.

But Kenny has taken account of another argument which raises a similar difficulty for his theory. In logic 1 the following inference is valid:

(C1) Do x and do y; so do x

It is parallel to the truth-functional pattern: p and q; so q. So on Kenny's theory its mirror-image

(C2) Do x; so do x and y

would be valid in Logic 2. But this will certainly be a very odd

inference. From "Open the door" one could not be said to infer "Open the door and smash the window". But Kenny tries to defend this inference. He argues that the conclusion of this inference does not contradict the premise; it only contradicts "the commander's tacit desire that the window should not be broken".²⁴ This can be prevented, he says, by expressly including another command in the original command, viz "Don't smash the window". Thus the paradox in (C2) is, he says, only apparent. Gombay in his discussion of Kenny's paper has rightly pointed out that one could not possibly include in a command all the things one does not want done.²⁵

Our examination of Kenny's theory may be summed up as follows; (1) The discovery of the logic of satisfactoriness does seem an important discovery in practical logic, for it seems to give an eminently satisfactory account of many inferences which on any other existing logic must be invalid, but which nevertheless seem perfectly all right to our intuition. (2) It does not however fit all imperative (and in general practical) inference. (3) The "Mirror-image" parallelism supposed to hold between the logics of satisfaction and satisfactoriness seems to break down in some cases. (4) While we can say clearly where the logic of satisfaction applies, we cannot be sure that the inferences allowed by this logic will seem sound to our intuition or even make sense. (5) Finally even in the limited sphere claimed for it by Kenny, the logic of satisfactoriness sometimes fails.

V

I shall close this review with a quotation from Bar-Hillel. He has pointed out that a large part of our trouble in the investigation of imperative logic arises out of the complicated behaviour of our natural languages. The difficulties are not confined to the investigation of the logic of practical discourse, but have beset logicians investigating the logic of indicative discourse too. It is well-known that conjunction which is taken by logicians to be commutative is not always so in ordinary English (or for that matter in innumerable other natural languages). Recall only the stock example, "Paul and

Mary got married and a son was born to them" versus "A son was born to Paul and Mary and they got married". Similarly in the case of imperative sentences. The imperative disjunctive is not always commutative in English. Compare, e. g. a teacher saying to a naughty boy: "John, stop that foolishness or leave the class" with "John, leave the room or stop that foolishness". "There exists no logic," says Bar-Hillel,⁶ "that covers all English imperative sentences, just as there exists no logic that covers all English declarative sentences. But just as there exists a logic of statements made by uttering English declarative sentences underdeveloped as it may be, so there exists a logic of commands issued by uttering English imperative sentences, though this logic has hardly been developed at all. In order to develop such a logic formally the commands (and statements) have to be presented first in some normalised form, preferably in some formalised language, but at least in some "natural" language that has been sterilised and exempted from all disturbing pragmatic features . . . One should therefore not be surprised to find clever logicians writing slightly foolish papers when they succumb to the temptation of not paying sufficient attention to certain distinctions in their treatment of natural languages just because these distinctions are immaterial for language systems."

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NOTES

- 1 Language of Morals, p. 28
- 2 Hare, *Ibid.*, p. 13. Hare later proposed the term "tropic" for "neustic".
- 3 *Analysis*, 18.3, January 1958, p. 51.
- 4 *Analysis*, 23 (Suppl.), Jan. 63, p. 39.
- 5 *Intention*, p. 56.
- 6 *Analysis*, 23 (Suppl.) Jan. 63 pp. 30-36.
- 7 *Ibid.*, p. 31.
- 8 *Ibid.*, p. 32.
- 9 *Ibid.*, p. 33.
- 10 *Mind*, July 1967, pp. 309-326.
11. Hare, *Ibid.*; p. 309.
12. *Ibid.*, p. 311.

13. Grice: "The Causal Theory of Perception", *Aristotelian Society Proceedings*, Suppl. Vol. XXXV, 1961, p. 130.
14. Hare, *Ibid*; p. 133.
15. See Section IV below.
16. *Ibid*; p. 325.
17. Kenny's name for the early Geachean variety of Imperative logic which Hare characterises thus. "The 'logic of satisfaction' makes use of the idea that in a valid imperative inference the premises cannot be fulfilled or satisfied without the conclusion being satisfied". (*Analysis*, 24·5, April, 1964)
18. *Ibid*; p. 325.
19. Hare, *ibid*, p. 326.
20. *Analysis*, 26·3, Jan. 66, pp. 65-75.
21. *Ibid*; p. 73.
22. *Ibid*. pp. 73-4.
23. *Ibid*: p. 74
24. *Ibid*; p. 74.
25. *Analysis*, 27·5, April 1967, pp. 147-48,
26. "Imperative Inference", *Analysis*, 26·3, Jan. 66, pp. 81-82,



PHILOSOPHY AND THE FACTS

A long-established form of argument in philosophy—Plato uses it in the **Euthyphro**, and Ryle claims it to be the principal argument-form employed in **The Concept of Mind**—is the **reductio ad absurdum**, which demonstrates the inconsistency of a set of premises by deducing from them a contradiction. Such **a priori** methods of confutation seem to be essential for dealing with those philosophical views which belong to traditional metaphysics, since one of the identifying features of metaphysical views is that they protect themselves against refutation through appeal to what are commonly regarded as the facts. Their method of protection is simple: it consists either of denying that what are commonly regarded as facts are really facts or of denying that the facts are properly described by common parlance. This is what G. E. Moore often gives the impression of having overlooked.

This form of self-defence is available even to what are apparently the empirically most committed of philosophical theories. For example, two interdependent characteristics of Descartes's notion of **cogitatio** are that (a) the existence and nature of each **cogitatio** are known by its possessor without possibility of error, and (b) the occurrence of every **cogitatio** is logically independent of the occurrence of any bodily event. It is tempting—and despite what is said above I think Ryle falls into this trap—to identify the notion of **cogitatio** with some such vague notion as **mental event**, to include under the latter category sensations, emotions and thoughts, and to imagine that one has refuted Descartes by having produced all kinds of examples in which we are wrong about our own feelings and further examples in which it is clear that certain kinds of mental events are logically tied to certain kinds of bodily events. But without further argument such procedures can never **refute** Descartes. For all that they show is that our ordinary concept of mind does not match Descartes's concept of the possessor of **cogitationes**, the soul; that our distinction between psychology and the natural

sciences does not match Descartes's distinction between mind and matter. To which, obviously, Descartes can say: so much the worse for the ordinary concept of mind, which the deductions of pure reason show to be confused.

We can perhaps still demand of such a metaphysic that it impinge in some way upon what we commonly regard as the facts: for instance, that we should be able, at least in principle, to re-describe the events of which psychology treats in the terms which the metaphysic in question provides for us. But the necessary qualifying phrase 'at least in principle' immediately deprives this demand of any stringency. For all failures in such attempts at re-description can be attributed by the metaphysician under attack to our own intellectual inadequacy; and the confutation of **this** claim is clearly a far more difficult task than proving that one can be mistaken about one's own emotions. Even if it can be achieved, it is not a refutation that works by a simple appeal to the facts.

I have tried to show, briefly, that even the most empirical-seeming metaphysical view is not vulnerable to testing against the facts. The invulnerability can be seen far more clearly in the case of a metaphysical system which is quite remote from human experience, like Leibniz's. It appears to be Leibniz's view that the human bodies we encounter in experience are merely the phenomenal appearances of infinite collections of monads which differ in the clarity of their "perceptions", the one with the clearest perception being the dominant monad which forms the rational soul of the person. How on earth is such a view to be compared with the facts? For it straightway condemns them as mere phenomena, to be ignored in favour of the deductions of pure reason.

Given that **arguments** such as the **reductio ad absurdum** are essential for the rejection of misguided metaphysics since appeal to the facts is insufficient (and I intend this to be given only provisionally), we may begin to be puzzled as to the status of such philosophical utterances as 'Each single substance expresses the whole universe after its own manner, and in its notion all events are comprised with all their circumstances and all the sequence of eternal things' (Leibniz, **Discourse on Metaphysics**, translated by Lucas and Grint, synopsis to

section IX). This sentence is in the present indicative active, and looks in context as if it is being used to state a fact. Yet as we have seen, what we commonly regard as the facts cannot be made to bear upon its truth or falsity. So unless we are to say that there are two categories of facts—facts of pure reason on the one hand and ordinary facts on the other—we may as well say that Leibniz's utterance does not state a fact. But to some extent it does not matter whether we say that the utterance informs us of a fact of pure reason or not, for whatever we say we have still to get clear about the differences between such utterances and those which inform us of ordinary facts; and this is the task of getting clear about the different jobs that sentences are doing in philosophy on the one hand and in coping with ordinary day-to-day experiences on the other.

I said that to some extent it does not matter what we say which is pretty vague. But it is impossible to be precise since one way of marking the differences between philosophical utterances and others may be more confusing than another way. And I think that some ways of viewing philosophical utterances do make it almost impossible to understand their nature. So I prefer to say that utterances such as Leibniz's do not state facts.

Well, what kind of utterance is it? Suppose that we wish to reject it as somehow incorrect, and that our method of rejection is to deduce a contradiction from it, either alone or combined with some set of similar utterances. Such a procedure reveals that the premiss or premisses of the deduction are not consistent. We can then state the premisses which give rise to the contradiction, and say what is apparently the right thing by prefacing these premisses, with the words 'It is logically impossible that...'.
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Now Moore (**Philosophical Papers** p. 275:) claims that Wittgenstein implied in lectures that the sentence 'It is logically impossible that p should be the case' means the same as 'The sentence "p" has no sense.' Wittgenstein also talked at the time of 'tautologies' as being 'without sense'; and it was characteristic of him throughout his career to think of philosophical remarks as in some way or another nonsensical.

(I realise that even in the **Tractatus Logico-Philosophicus** he distinguished at least two importantly different ways of lacking sense) but that is not to the point here.) E.g. in the **Tractatus** (6. 53) he says that the correct method in philosophy would involve demonstrating to someone who wanted to say something metaphysical that 'he had failed to give a meaning to certain signs in his sentences'; while in the **Investigations** (p. 221e) he speaks of the utterance 'I know what I want (or wish or believe or feel)' as 'either philosophers' nonsense or at any rate **not judgement a priori**'.

If Wittgenstein is correct, we are apparently freed from our initial puzzle concerning the status of Leibniz's remark. It now seems to be clear why we needn't bother to consult the facts when considering it: how could we expect the facts to be relevant to nonsense? But this advantage seems far outweighed by the disadvantages of Wittgenstein's idea. First of all, we appear to **understand** many remarks which on his view should be condemned as nonsense. Of course this apparent understanding could be illusory, but that point would require separate argument for each individual case. Secondly, we can perform logical operations on these utterances; and if some are to be condemned as nonsense on the ground that they give rise to contradictions it seems that we **must** be able to perform such operations in order to demonstrate their nonsensical character. How on earth, then, can they lack sense? One cannot perform deductions on the utterance 'Fairy the how watch too' which very clearly lacks sense. It looks as though Wittgenstein's idea is one of the most implausible one could have about the nature of philosophical utterances.

However, the idea does have sufficient useful properties to make it a view worth investigation. (1) If it is correct we can, as I have said, see why the facts don't always bear on traditional philosophy, and see also the advantages attendant upon doing another kind of philosophy which depends heavily on the use of examples to give it empirical content and persuasive force. (And here one may consider the enormous change in **style** amongst some distinguished contemporary philosophers which is largely owing to Wittgenstein.) (2) It can

seem (and did to the logical positivists) to provide a weapon with which all metaphysicians can effectively be bludgeoned into silence. (3) It explains why metaphysical disputes seem rarely to be satisfactorily resolved. (Old arguments never die; they simply fade away, only to be revived later to fight again.) (4) It explains the peculiar feeling of unreality that overcomes me when I try to follow the supposedly rigorous deductions of, say, Spinoza's **Ethics**. (5) Perhaps most importantly, it can give us a middle road amongst seemingly exhaustive and mutually exclusive philosophical theories. Thus: is the universe one or many? Neither, for the question cannot sensibly be asked. Is Time real or unreal? Such talk is nonsense. And so on—though admittedly that is far too short a way of dealing with such questions; the hard work and real insight would come in **exposing** the nonsensical character of the questions. Even philosophical views which seem to lie closer to the facts than those at stake in the questions I have just mentioned may be avoided through using Wittgenstein's idea. For instance, we can reject both dualistic and idealistic theories of mind, on the one hand, **and** their materialist counterparts on the other, for we can say of all these traditional theories of mind that they are constructed in terms of a dualist model and that hence any contradiction in dualism will infect them all with nonsense, since they will all contain such contradictions or the equally nonsensical denials of them. (If it is nonsense to suppose that the world consists of two substances, it is equally nonsense to suppose that it consists of one, or any other number.) This at least is an important result. So what can be said in a defence which is other than merely pragmatic, of the idea that philosophical utterances which are open to rejection only through methods of argument like the **reductio** are nonsense?

I must admit that the outlook is not initially promising. Wittgenstein said in the lectures reported by Moore (*ibid.* p. 274) that the expression "'makes sense' is vague, and will have different senses in different cases"; and one can distinguish straightway two different kinds of nonsense **at the very least** (of course there are other kinds), one being

of the category-mistake kind like 'Cardboard boxes eat geometry' and the other of the kind exemplified by the remark I quoted from Leibniz. Let us call examples of the former kind 'obvious nonsense' and examples of the latter kind 'disguised nonsense'. This categorisation, while it contains the seed of a remarkably powerful philosophical idea, is hardly explanatory, and indeed it seems to throw up a further difficulty. For surely the **point** of classifying utterances like Leibniz's as **nonsense** is that they are to be regarded as essentially similar to category-mistakes. And if we distinguish them, as we must, we seem to throw away the advantages of terming them nonsense. One indicator of a sentence's being nonsense is its not stating an ordinary fact, but being nonsense must surely have more to it than this. For if it does not, we are guilty of nothing better than mere persuasive definition, of using the phrase 'lacking sense' simply to mean 'not stating an ordinary fact' and then going on to trade on the pejorative character of the former phrase to produce a sense of discredit when in reality something quite neutral has been pointed out. (Wittgenstein may have done something like this accidentally when in the **Tractatus** he described certain otherwise quite respectable non-fact-stating sentences, e.g. tautologies, as 'senseless'—as opposed to 'nonsense'). Thus commands, mathematical equations, questions and exclamations do not state ordinary facts—the second and fourth do not even have a propositional content—but are we to describe them as nonsense? If so, it doesn't appear to matter a bit whether an utterance is nonsensical or not.

However, utterances of the kinds just mentioned do not just not state ordinary facts; they do not even **appear** to do so. Whereas Leibniz's remarks, and many others to be found in the writings of metaphysicians, do look as if they are stating facts. What may make them pernicious, then, is not their non-factual status, but their non-factual status **combined with** their factual appearance. At this point it may even be possible and advisable to drop the vocabulary of nonsense and instead to talk of philosophical remarks which masquerade as statements of fact. The word 'masquerade' retains something of

the pejorative character of the word 'nonsense', but its use frees us of the urge to misunderstand my point, which stems from a justified desire to preserve the dignity of philosophy.

Well, how many different kinds of masquerades are there, and how do they deceive us? To the first of these questions I have no answer; to the second I have no simple answer but I can illustrate to some extent the ways in which we may be deceived, by invoking Wittgenstein's notion of the misleading grammatical analogy.

Let us remind ourselves first that we cannot judge the nature of what a form of words conveys solely by attention to its surface grammar. The sentence 'I have many vices' is grammatically similar to, but logically different from, the sentence 'I have charming vices.' Even where logical form is apparently most manifest in surface grammar, as in such sentences as 'War is War', 'Business is business', 'He jumped up and down', whether such sentences express tautologies and contradictions or not will depend upon the context in which they are used. (Generally, they seem to express tautologies and contradictions only in philosophical discussions.) Further, if sentences such as these may have acceptable uses in which they do not express tautologies or contradictions, so equally may any typically philosophical sentence find a non-philosophical application. A vague awareness of such possibilities of application can produce in us the impression that we are stating a fact when we use such sentences divorced from a context. And this is one kind of masquerade, where we use a sentence that takes on meaning only in a context of application, in no context at all, and expect it to retain some kind of essential nucleus of meaning which is independent of all applications. The illusion is fostered here by the contribution of etymology to our notion of meaning, for a sentence retains its etymology even when unapplied. In such a way sentences like 'Colours are simple' can appear to tell us something fundamental and important.

A similar way in which we may be misled in philosophy is through using a sentence which has application in one context, in another and inappropriate context; supposing

that a sentence will automatically carry its sense into every application. Thus one can imagine a philosopher searching for certainty and saying to himself solemnly 'I am here' as an expression of complete certainty of a fact; and here the illusion of fact-stating is fostered by the fact that in another context the remark has a perfectly good application, e.g. as a signal when spoken in the dark.

Another kind of masquerade arises where we combine symbols analogously to other symbols which have a use, but where the former have no use. A commonly-seen example is 'I cannot have your pain' (used as a premiss in sceptical arguments about other minds), where the analogy with 'I cannot have your wife' suggests pains are even more difficult to prise away from their owners than wives are from their husbands. The muddle here becomes evident when it is realised that particular pains are identity-dependent upon their "owners" and that this sceptical premiss is at best vacuous.

Now in any real case of metaphysics one probably gets all of these kinds of masquerade and more. Sorting out what gives us the appearance of grasping a fact when we read 'Each single substance expresses the whole universe after its own manner...' would be a sizable task. But the principles are comparatively clear: think, e.g., how such remarks trade on metaphor, imagery and suggestion. Metaphysics would be nowhere without metaphor and imagery.

If we can defend the idea that much of the *a priori* is a masquerade, in some such way as this, we can get all the benefits which accrue from the initial attempt to regard metaphysical utterances as nonsense, without having to put up with the difficulties. For our apparent understanding of such utterances, and our ability to perform logical operations on them, can be explained in terms of our reading them while under the influence of a grammatical analogy. And at the same time we are not forced to classify them along with gross category-mistakes, for we can allow that many of them are doing a job; only it is not the kind of job that they look as if they are doing. If we wish, we can then get those jobs done (e.g. recommending the substitution of new conceptual

schemes which are free of the inadequacies metaphysicians claim to detect in our present ones) without risk of being misled by the masquerade; by framing our philosophical utterances in such a way as to reveal as clearly as possible their non-factual status. It is a further step to give them a primarily linguistic or grammatical status as Wittgenstein tends to do, and I don't wish to argue for this; but at least we can change from making the right points in the wrong way to making the right points in the right way.

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CAN THERE BE A PRIVATE LANGUAGE ?*

In a philosophical dispute of this sort, which Wittgenstein prominently raised, it would be always better to be clear as to who are his opponents. Wittgenstein hardly ever mentions them explicitly in his entire philosophical disquisition. From the comments which are now available in the several articles written on this subject, it is however quite clear that Wittgenstein is here arguing against the skeptics who deny the possibility of the knowledge of other minds. These skeptics are not ordinary ones. Their skepticism is firmly rooted in the Cartesian doctrine of the substantival dualism of Mind and Body. Descartes, Abbe de Lanion, Malebranche and Johans Clauberg are its representatives. This kind of skepticism can be generated even in the system like that of Spinoza which, inspite of its not being overtly dualistic, very much covertly subscribes to the Psychophysical parallelism. It can be as well shown to be the logical upshot of the Leibnizian monadology. I do not think that Wittgenstein had such a large battery of opponents before him when he presented his argument against the possibility of a private language. No doubt, the argument fixes the nails very firmly in the coffin of the Cartesian dualism but it also does, as I shall argue, much more than that.

None of the Cartesians had ever espoused any such a distinction such as the distinction between private language and public language or had ever raised any question about the meaningfulness of language we use to speak about things in the world. In fact, for Descartes and his followers the very fact that human beings use language (Descartes uses the expression '*la parole*') was a clear (?) evidence of the presence of soul-substance in other human beings. Animals, just for want of this evidence, were conceived by him as bereft of souls, they were machines. (Descartes in his **Discours de**

* Presented at the Symposium held by the Indian Philosophical Congress, (44th Session) under the auspices of the Poona University in 1970.

la methode has an argument to that effect.) Descartes did not conceive the distinction between private language and public language. The distinction belongs to the 20th Century philosophical sophistication. If, however, Descartes's substantival dualism is mapped rigourously on our language, the distinction—or what may be termed as linguistic dualism will have to be accepted as its consequence and then it would follow that the denial of that distinction (which Wittgenstein aims at) necessarily would imply the denial of the substantival dualism. I am, however, inclined to think that Wittgenstein's argument can be followed better if we take it as directed not so much against the Cartesian dualism as against the Positivistic programme of setting up Protocol Language as distinguished from Physical Language. Among the Logical Positivists, Rudolf Carnap, in particular had contributed a great deal to this programme but had incidently held a rather odd view that protocol sentences refer to physical events and not to private experiences. He gave an argument (with which I shall begin the first part of this paper), which had the plausible consequence that since the protocol sentences do not refer to the private experiences, there is no such thing as a private language. A. J. Ayer mentions Carnap's argument thinking that Carnap joins his hands with Wittgenstein on this issue. I shall try to maintain that the resemblance in the positions of Carnap and Wittgenstein is only superficial and that Wittgenstein's argument makes a deeper incision into the presuppositions of Carnap's argument. These presuppositions are mainly with regard to the nature of language. Wittgenstein has thereby opened up a large vista of philosophical inquiries concerning use and logic of mental concepts; the inquiries would not appear to be sharp enough, were Wittgenstein to be taken to argue merely against Cartesian Dualism rather than against the new programme of the Logical Positivists. Let us therefore take a close look at Carnap's argument.

I

It may be noted that Carnap's argument is a **reductio ad absurdum** of his opponent's view that the sentences in the

protocol language of any individual (private language) describe only the private experiences to which the individual alone has privileged access. For the sake of argument, Carnap assumes that ...

".....by 'thirst of S_1 ' we understand not the physical state of S_1 's body but his sensation of thirst, i.e. something non-material, then S_1 's thirst is fundamentally beyond the reach of S_2 's recognition, because all S_2 can verify when he asserts ' S_1 is thirsty' is that S_1 's body is in such and such state, and a statement asserts no more than can be verified." (Carnap, *The Unity of Science*, p. 79)

Carnap points out that his opponent must accept that protocol language "could be applied only solipsistically; there would be no intersubjective protocol language." (p. 80) At the same time the opponent must accept that the physical language is inter-subjective, not only verifiable but publicly verifiable. If this is so, the opponent must accept, says Carnap, that there are inferential relations between statements belonging to Physical language (P-stts) and statements belonging to Protocol Language (p-stts), as only such sentences which assert or imply something about experience are verifiable. It would then follow that physical language statements must also describe private experiences since "one statement can be deduced from another, if and only if, the fact described by the first is contained in the fact described by the second." (p. 87) But this is impossible "for the realms of experience of two persons do not overlap. There is no solution free from contradiction in this direction." (p. 82) In order to see the full implication of Carnap's argument let us formalise it.⁺

(P-statement : Physical language statement)

(p-statement : Private language statement)

1. p-statements describe private experience. (assumption)
2. P-statements are intersubjective and verifiable.

Pr. 1

⁺ I am greatly indebted to Prof. James Cornman of the University of Rochester in helping me to construct the formal lay-out of the argument.

3. A statement is verifiable if and only if it is logically related to some statement describing private experiences.

Pr. 2

Therefore,

4. P-statements are logically related to statements describing private experiences. (2 and 3)

Therefore,

5. P-statements are logically related to p-statements. (1 and 4)

6. A statement describing private experiences describes private experiences of one person. Pr. 3

Therefore,

7. A p-statement describes only the private experiences of one person. (1 and 6)

8. Statements which are logically related describe the same facts. Pr. 4

Therefore,

9. A P-statement describes only the private experiences of one person. (5, 7, 8)

Therefore,

10. P-statements are not intersubjective. (9)

10 contradicts 2, and since 2, 3, 6, and 8 are taken by Carnap as true, 1 must be false. If 1 is false, then p-statements do not describe private experiences but describe, the only other possibility, the physical events. Consequently **P**-statements also describe physical events and the translatability of p-statements into P-statements stands, according to Carnap, established and the Private-language view stands refuted.

But unfortunately this argument of a physicalist has to face one serious difficulty. The crucial step in getting the contradiction in the above argument is obviously the step No. 5. Carnap is able to get this step only if he establishes 4, and he does that by accepting the truth of 2 and 3. If one pays close attention to what 2 and 3 say one will realise that the two contain a view of language—the Logical Positivist's theory

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of Meaning and the implicit assumption that the P-statements have only descriptive and referential function to perform. It is because of this view that Carnap was able to reach the contradiction needed for showing the impossibility of Private Language. Indeed the question is how can the falsity of 1, go with the truth of 2 and 3 ? From the falsity of one, it follows that there are no statements describing private experiences in which case, it is difficult to see how P-statements can be verified. Carnap's refutation of Private Language is thus internally vitiated by incoherence between what he proposes to establish and what he assumes in establishing it. Urmson, therefore very rightly points out in his **Philosophical Analysis** (pp. 122-26)-that Carnap must either give up falsity of the claim that private language statements describe private experiences or merely assert the logical relatedness of P-statements and p-statements **dogmatically** without giving any reason whatsoever. In either case the argument is doomed to fail. As it is, the argument solely depends upon the verifiability criterion of meaning. But this view of the Logical Positivists is by no means defensible. It faces innumerable problems which are well-known and they no doubt deprive Carnap's argument of its soundness. It is true that Carnap in the later development of his thought, became aware of some of the crucial difficulties which his physicalism had to face and that he came to acknowledge the failure of the translatability programme. It is interesting however to note that while on the one hand Carnap recommended translatability programme, on the other, he came to realise, "that the protocol languages of various persons are mutually exclusive is still true in a certain definite sense : they are respectively, non-overlapping sub-sections of the physical language". (**The Unity of Science**, p. 88). In other words, the scruples about solipsistic ring around the p-statements had not left Carnap's thinking and the sole reason for this is to be found in the view of language—especially the theory of meaning that he advocated at that time. What was, therefore, necessary, to get out of this solipsistic riddle, was to examine threadbare the entire problem of meaning and to determine the logical status of the so-called private-language-

statements. Carnap's argument underscores the view of language that was held by Wittgenstein himself in the **Tractatus**. The Translatability programme was a philosophical gloss over it. In the **Philosophical Investigations**, Wittgenstein rejects this earlier view and implicitly thereby, Carnap's argument against the private language. Wittgenstein's rejection of the possibility of private language is based on a complete new vision of the nature of language and its meaningfulness. Carnap argues that the first-person psychological utterances—p-statements describe physical events—they have a descriptive role to perform : they are translatable into physical language : therefore, there is no private language. He assumes that such sentences are the **part of our language** and that **they are meaningful**. Wittgenstein raises the more basic and fundamental question as to whether they can form the part of our language, whether they can be said to be meaningful utterances at all. One can now see as to why Rush Rhees remarks at the outset of his reply to Ayer that "the problem about private languages is the problem of how words mean. This is much the same as the question of what a rule of language is." (**Proceedings of The Aristotelian Society**, Supp. Vol. XXVIII (1954), p. 77.) Carnap's argument, I suppose, throws the entire private language issue into its proper perspective.

II

What is a private language according to Wittgenstein? Not the one used by an individual for his private use. "Individual words of this (private) language are to refer to what can only be known to the person speaking; to his immediate private sensations. So another person cannot understand the language." (**Philo. Inv.** : 243). Is this explanation an obscure one? Since the idea of private language is denounced in the end by Wittgenstein as notoriously confused one, there is no question of giving examples of sentences or words belonging to it. In fact, Wittgenstein wonders what such sentences and words can be. It is therefore difficult to see any substance in the complaints made by J. F. Thompson and H. N. Castaneda that Wittgenstein's notion of a private

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language is obscure one. (Refer: **Knowledge and Experience**, ed. C. D. Rollins, pp. 90,121-23). But if anyone indeed wants to know what this notion of private language is like, he is simply called upon to see what Carnap is setting up as a protocol language. Words and sentences of the protocol language are believed to refer to immediate sensations and the individual using them alone understands them. Even though, according to Carnap, they must refer to physical events, they are not deprived of the privacy which is built into them by the fact that they are protocol sentences. Such a language can only be a philosophical presupposition giving rise to muddles we have if we consider skeptic's argument denying the knowledge of other minds.

Let us suppose that Ayer's Crusoe has Carnap's protocol language as an explicit philosophical presupposition of his programme. He is introduced into a Society of human beings who experience pain but who can control it to such an extent that there is no expression of pain-behaviour. With regard to pain-sensations, let us suppose further that Crusoe evinces enough philosophical sophistication to construct the following argument. Since the words of his private language refer to his own immediate sensations, viz. pain, and since he alone can verify it in his own experience and further since the realm of his experience can never overlap with that of another person, he will set the following premise:

I cannot feel another person's sensations, in this case,
pain. (pr. 1)

From this premise he would straightaway go on to argue that:

Therefore, I cannot know the pain-sensations another
person is having. (C)

It is obvious that in order to make the argument valid, Ayer's Crusoe, who now poses himself as a skeptic about the knowledge of other minds, will have to admit certain other premises, such as

The only appropriate way of knowing another
person's pain-sensations is to feel that person's
sensations. (pr. 2)

or again,

To feel one's own sensations is also to know one's
own sensations. (pr. 3.)

One can see that this is the usual skeptical argument given to assert that while I alone have the privileged access to my own sensations I can never make any knowledge-claim with regard to the sensations of others. After raising the question of the possibility of private language, Wittgenstein immediately attacks the premises of the skeptical Crusoe. But the attack has to go through certain stages.

Firstly he clarifies that the sensation-words which we use in ordinary language to speak about my sensations or the sensations of others, such as e.g., 'I am in pain' and 'he is in pain' do not form the part of the private language to which he is referring. Some thinkers have gone to the extent of maintaining that since sensations are private and since all of us have names of sensations in our vocabulary, such utterances as 'I am in pain,' 'He is in pain', etc. constitute private language and that that itself constitutes a counter-example to Wittgenstein's thesis. It is very necessary to note that the ordinary sensation-words do not perplex Wittgenstein at all. These words are learnt by us by reference to the natural expressions of sensations with which they are, so to say, tied up. These words thereby satisfy the needs which Wittgenstein sets up for the normal language-games. (I shall assume here a fair knowledge of Wittgenstein's notion of language-game and of his remarks in earlier sections, about what is involved in understanding language.) These words have a regular use in our language. As Rush Rhees argues, the case of the knowledge of sensations is not indeed different from the case of knowing the colours (though there might be some important differences in the two.)

"I cannot learn the colour unless I can see it;
but I cannot learn it without language either.

I know it because I know the language. And it is similar with sensations. I know a headache, when I feel it, and I know I felt giddy yesterday afternoon, because I know

what giddiness is. I can remember the sensation I had, just as I can remember the colour I saw. I feel the same sensation and that is the same colour. But the identity—the sameness—comes from the language."

The language of pain becomes meaningful, or it makes sense to say '**I am in pain again**' or '**he is in pain again**' mainly because the word 'pain' has a **regular use** and because **we know this use** when we know what pain is. The conclusion of the skeptic is therefore based on the erroneously conceived grammar of the sensation-words. The conclusion therefore loses all its credibility. "If we are using the word 'to know' as it is normally used (and how else are we to use it?) then other people very often know when I am in pain." (PI: 246). Wittgenstein questions the very use of the expression 'I know' when some one says, 'I know that I am in pain'. (While Wittgenstein rejects this cartesian 'I know' in respect of sensations, he also rejects the behavioristic interpretation of our knowledge of sensation-words.)

He has not as yet touched the philosopher's private language. Since the various premises are based upon skeptic's wrongly conceived grammar of sensation-words or again of the concept of knowledge, he could have dismissed those premises without much ado. But since he suspects that the trouble is deeper, he felt it necessary to probe further into the nature of the so-called private language and to show exactly where the trouble lies. He wanted to exercise the ghost of private language which has haunted even some of the present-day-philosophers. He conceives of an imaginative experiment of constructing signs or words for the sensations which one feels but which are cut off from the human behaviour or the expression which normally accompanies them. The natural behavioral expression of the sensations has got to be cut off in order to render the language strictly private in the sense that the individual alone has the access to their understanding. In PI: 257, Wittgenstein contends that it is impossible for the individual to name the sensations in a circumstance in which Ayer places his Crusoe. No one can indeed claim that Ayer's Crusoe **knows** his sensations, unless he has named them.

Because in order to name any sensation, "a great deal of stage setting in the language is presupposed if the mere act of naming is to make sense. And when we speak of someone's having given a name to pain, what is presupposed is the existence of the grammar of the word 'pain'; it shows the post where the new word is stationed." (PI : 257) The diary argument, with its grave doubts on the role which concentration and memory can perform in the naming ceremony, leading upto the questions of criteria of identity of sensations, is brought in by Wittgenstein to reinforce this very point made in PI : 257. Ayer's Crusoe indeed cannot overcome all these obstacles and name a single sensation. The reason is that he cannot play the normal language-game. He does not have rules to follow, but if he does not have rules to follow, he does not have language either. Wittgenstein's remark that "the proposition 'Sensations are private' is comparable to 'one plays patience by oneself' (PI : 248) has this significance that setting up of a private language would involve abrogation of a normal language game. How can one obtain a criterion of identity of sensations? Even if one gets how can one avoid the possibility of error? In spite of all this, if one still persists in holding that he knows what pain is only from his own case, Wittgenstein's beetle-in-the-box-argument would be able to give him final disillusionment in so far as it shows that if we construe the grammar of the expression of sensation on the model of 'object and designation,' the object drops out of consideration as irrelevant. (PI : 293). The only way for the skeptic to get to the knowledge of the sensations is also thus blocked.

Wittgenstein's attack against skeptic's argument is indeed manifold and complex. I have dealt with it in so far as it involves the idea of a private language. In view of Wittgenstein's pointed attack, I do not think that the idea is likely to raise its head any longer. There are many things which Wittgenstein says on the question of ownership of experience, the concept of a criterion (here as also elsewhere) and the use of 'know' in the Skeptic's argument. I cannot obviously deal with all of them especially when I have confined this short paper to the exploration of Wittgenstein's strategy in rejecting the possi-

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bility of private language. Wittgenstein has tried to remove all the temptation to indulge in the philosophical enterprise of setting up anything like private language. If philosophers have fallen victim to it, the reason is that they have taken a very simple view of language—especially the language of sensations. Wittgenstein asks us to "make a radical break with the idea that language functions in one way, always serves same purpose: to convey thoughts — which may be about houses, pains, good and evil or anything else you please." (PI : 304)

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CAN WE CONCEIVE OF NIRANVAYA-VINĀSA IN NYĀYA-VAIŚEṢIKA?

It is customary to speak of total destruction (niranvaya-vināsa) in the Buddhist Philosophy of momentariness (kṣāṇikavāda).¹ Buddhism does not believe in permanent substances which serve as substrata for qualities to appear in and disappear from. It believes that every object — mental and physical — is under the grip of momentary existence. We cannot see the same object at two moments or at two different places. It is different at different moments and at different places. The idea of an enduring substance amidst these changes is a myth. It is nothing but a conceptual device constructed by our mind but not a reality independent of our mind. Thus in the absence of an abiding substratum, every object is looked upon as a series of discrete and discontinuous point-instants (svalakṣaṇas).

Each point-instant is a unique particular. It does not derive any essence from the preceding one and it does not transmit its essence to the succeeding one. There is nothing common between them except that they are causally related. They are absolutely dissimilar (atyantavilakṣaṇa). The last moment of the seed series is supposed to be causally related to the first moment of the sprout series. But before the sprout series begins, the seed series gets destroyed and when it is destroyed, the Buddhists believe, it is destroyed totally without leaving any trace behind. The sprout series is not a seed series in a different form, but an absolutely different existent, the former having disappeared totally. It is this kind of destruction without leaving any trace behind that is called niranvaya-vināsa by the Buddhists.

Can we conceive of this type of destruction without leaving any trace behind in Nyāya-Vaiśeṣika? The Nyāya-Vaiśeṣika distinguishes between two types of substances—the eternal and the non-eternal. The former viz., souls, atoms etc., have no beginning and end and hence they are construed as eternal. All those that are produced e.g., cloths, pots, trees, mountains

etc., are looked upon as destructible and hence non-eternal. Thus whereas Buddhism believes that everything is subject to total destruction, the Nyāya-Vaiśeṣika while admitting that certain things are subject to destruction, accepts certain others as indestructible. It is for this reason that Śaṅkara remarks that the Vaiśeṣikas are semi-destroyers (*ardha-vaināśikas*) as against the Buddhists whom he condemns as total-destroyers (*sarva-vaināśikas*)². Commenting on Śaṅkara's observation Vācaspati Miśra elucidates that the Vaiśeṣikas are called semi-destroyers because while agreeing that the atoms, ether, time, space, soul and mind and the categories, universal, particularity and inherence and also some qualities as eternal, they believe that the destruction of other objects involves total destruction (*niranvaya-vināśa*)³.

Thus no less a person than Vācaspati Miśra, applied the term *niranvaya-vināśa* to the destruction of objects in Vaiśeṣika. But is he justified in using that term in respect of destruction in Nyāya-Vaiśeṣika? Suppose we take out all the threads one after another from a piece of cloth, the cloth no doubt disappears, but does it disappear totally without leaving any trace behind (*niranvaya-vināśa*)? Do its parts viz., threads not remain intact? In fact another cloth can be woven from these threads. In so far as its parts (cause) remain intact, though the effect (whole) disappears, it appears that we have no basis to speak of *niranvaya-vināśa* in respect of destruction according to Nyāya-Vaiśeṣika. It is not total destruction (*niranvaya-vināśa*) but partial destruction (*sānvaya*). In fact the writers of Nyāya tradition are totally opposed to the Buddhist view of *niranvaya-vināśa*.

The Nyāya-Sūtra refers to the Buddhist stand-point that objects are produced out of non-existence since there is no origination for an effect without the destruction of its cause.⁴ The seed has to disappear totally before the sprout comes into existence for as long as the seed remains as the seed, the sprout cannot come into existence. It is this destruction (of the seed) which is a kind of non-existence that is the cause of the sprout. Attacking the position of the Buddhists, Vātsyāyana observes it is true that the seed gets destroyed before the sprout comes into existence, but the destruction of the

seed does not mean its total annihilation. It only means that when the arrangement of the parts of the seed gets disrupted owing to an unseen force (*adrṣṭa*) the previous arrangement of the parts that originated the seed disappears which results in the destruction of the object (seed) born of that arrangement and they undergo another arrangement from out of which the sprout is produced. The point is that destruction is destruction of the seed-whole and not its parts. The parts of seed continue to exist even after the destruction of the seed which subsequently originate another whole viz., sprout through a different arrangement⁵ Uddiyotakara contends that if (non-existence) destruction itself were to be the cause, anything can be produced from the destruction of anything⁶. Vācaspati Miśra observes that if a paddy-seed is destroyed totally and destruction as such is the cause the destruction of the paddy-seed may give rise to a barley-sprout in so far as there is no difference between the destruction of the paddy-seed and the barely-seed⁷. Thus there is a clear suggestion in the Nyāya works that destruction of objects is not total.

One has to steer clear of this predicament if one wants to ascribe *niranvaya-vināśa* to the destruction of objects in the Nyāya-Vaiśeṣika.

Though we cannot conceive of *niranvaya-vināśa* in Nyāya-Vaiśeṣika in the same sense in which we perceive it in Buddhism, there is a sense in which we can conceive of it in Nyāya-Vaiśeṣika without absurdity. Amalananda, a commentator on Bhāmatī makes efforts to throw light on the issue. He observes that the *satkāryavādin* according to whom an effect is non-different from its material cause is not open to the charge of total destruction (*niranvaya-vināśa*) for though the effect (cloth) is destroyed it can still be supposed to persist in the form of its material cause (threads). On the other hand the Vaiśeṣika, who accepts essential difference between the material cause and its effect, has to admit total destruction of the effect (*niranvaya-vināśa*) when it is destroyed.⁸

Thus when a cloth (effect) disappears after its dissolution into threads, the Sāṅkhya can claim that the cloth is not destroyed totally but exists in the form of threads for according to its doctrine of *satkārya* the cloth is nothing but threads in

a different form. Even when threads are burnt to ashes, the satkāryavādin can argue in support of the continuity of the cloth in the form of ashes and even if ashes disappear, it does not imply total destruction of the cloth, for he can claim its existence in the form of **sattva**, **rajas** and **tamas** (prakṛti) since every product in the ultimate analysis is nothing but an aspect of the primordial Prakṛti. It is the fundamental tenet of the satkāryavādin that there is no destruction for the existent and origination for the non-existent⁹.

But according to the Nyāya-Vaiśeṣika doctrine of essential difference between the material cause and effect (asatkāryavāda) threads (cause) and cloth (effect) are different entities each with a distinct substance (**dravya**) and qualities (guṇāḥ) of its own. On this assumption when a cloth gets destroyed, even if threads remain intact, it does not imply the continuance of cloth in any form. The cloth with its substance and qualities is supposed to have been destroyed, and an object is nothing more than its substance and qualities. Thus when both the substance and qualities of an object get destroyed, we are logically constrained to conclude that it is destroyed (totally) without leaving any trace behind. When threads continue to exist after the destruction of the cloth, they exist simply as threads i.e., as substances essentially different from cloth and not as the traces of cloth and hence the existence of threads does not imply the existence of cloth even as the existence of bricks, after the demolition of a building, does not imply the existence of a building. On similar grounds, it must be held, that the eternal existence of the ultimate constituents of a cloth viz., atoms, does not mean the existence of the cloth in any form since the cloth and atoms are totally different kinds of substances. In contrast to Sāṅkhya the Nyāya-Vaiśeṣika swears by the maxim that there is origination of the non-existent¹⁰ and (total) destruction of the existent.

The Nyāya-Vaiśeṣika subscribes to the view that an effect is not pre-figured in its material cause (asatkārya) and hence when it comes into being, it originates afresh (ārambha). Prior to the existence of cloth, there were no traces of it in the threads. Accordingly we must assume that both the substance (**dravya**) and qualities (guṇāḥ) of the cloth were not

pre-existent in the threads (*samavāyi-kāraṇa*). Kaṇāda observes that substance and quality resemble in producing their congeners¹¹. Elucidating the idea he states that substance produces another substance and qualities produce another quality.¹² We may, therefore, conclude that the substance of the cause (threads) produces the substance of the effect (cloth) and the qualities of the cause (threads) produce the qualities of the effect (cloth). Thus when the cloth comes into existence owing to causal operation it must be supposed as a distinct entity with substance and qualities different from those of threads. The followers of the Nyāya-Vaiśeṣika observe that the cloth which originates in threads subsists in them by the relation of inherence (*samavāya*) — a unique relation which enables distinct realities to exist indistinguishably without losing their identity¹³. Though threads and cloth are distinct entities they appear as one owing to the relation of inherence that glues them intimately so as to mislead us to the view that they are not two but one. The Nyāya-Vaiśeṣika distinguishes between two types of reals viz., 1) those that can be conjoined and disjoined (e.g., the table and the table cloth) and 2) those that cannot be conjoined and disjoined (e.g., substance and its qualities or threads and the cloth) though distinct. The table and the table cloth can be conjoined and disjoined and they remain distinct both in their conjunction and disjunction. But the substance (*dravya*) and qualities (*guṇaḥ*) or threads (parts) and cloth (whole) cannot be conjoined and disjoined. The fact that substance and its qualities or threads and the cloth cannot be conjoined or disjoined does not mean that they are non-distinct. It is the relation of inherence between them that precludes us to perceive them as distinct. Praśastapāda observes that things that are united by inherence are in the relation of the container (*ādhāra*) and the contained (*ādheya*).¹⁴ In the case of threads and the cloth, threads are the container and the cloth is the contained since the latter subsists in the former by the relation of inherence. When the contained is destroyed, the existence of the container cannot be construed as the trace of the contained any more than the existence of the curds cup after the curds is eaten, can be taken as the trace of the curds. Similarly when the

cloth gets destroyed owing to the separation of the threads, the existence of the threads will not imply the continuity of the cloth in any form. It implies total destruction so far as the cloth is concerned. This is the inevitable outcome of its doctrine of essential difference between cause and effect.

In fact the Nyāya-Vaiśeṣika contends that even if a single thread is added to or removed from a particular piece of cloth woven from a certain number of threads, it involves total destruction of that cloth. The cloth that exists after the addition or subtraction of a thread is construed as a totally different piece of cloth. The point is that the Nyāya-Vaiśeṣika looks upon every effect-substance as a whole (avayavin) made of parts (avayavas). What is popularly known as the material cause or the matter or substance from which an effect is produced, such as threads in respect of cloth, is looked upon as the parts (avayavas) and the effect substance (cloth) produced in them is called the whole (avayavin) by the Nyāya-Vaiśeṣika. Similarly in respect of pot, the pot-halves (kapāla) are the parts and the pot is the whole. The whole so produced simply inheres in its parts without any change in its essence. It is fundamental to the Nyāya-Vaiśeṣika system that every whole (effect-substance)¹⁵ is a distinct object possessing (1) precisely those number of parts it possesses, (2) that particular arrangement of its parts and (3) those particular qualities it is characterised by. If there is any addition to or subtraction from its parts or change in the arrangement of its parts or in its qualities by way of the disappearance of the existing qualities and the emergence of new qualities the Nyāya-Vaiśeṣika believes that the former whole (effect-substance) disappears totally and a new whole comes into existence.

Viśvanātha observes that if one thread is added to a cloth produced from a certain number of threads it results in the destruction of the previous cloth.¹⁶ Thus when we add one thread to a cloth produced by conjunction of ten threads it must be held that with the addition of the eleventh thread the original conjunction between the ten threads that produced the previous cloth gets destroyed which results in the destruction of the previous cloth in accordance with the rule that the destruction of *asamavāyi-kāraṇa* entails the destruction of

the whole (**avayavin**) born of that conjunction.¹⁷ Subsequently when the eleventh thread is added, a new type of conjunction between the first ten threads and the eleventh thread occurs and this results in the emergence of a new piece of cloth (whole). Similarly when a single thread is removed from a cloth produced from a certain number of threads, it should be understood that the previous cloth (whole) disappears totally.¹⁸ Udayana observes that when a pot is perforated with a needle, the pot which is a whole that existed in the parts prior to perforation disappears totally and the perforated pot is looked upon as altogether a different whole. The pot having lost a part of its body, however minute the part lost may be, cannot be the same whole.¹⁹ The whole is a single entity that pervades the entire substratum of its parts (*vyāpyavṛtti*) and hence it can never dispense with any of its parts if its identity is to remain undisturbed. A whole does not disappear in parts. Either it disappears totally or it exists intact.

Again if there is any change in the arrangement of the parts of a particular product, it involves total destruction of that whole just as the change in the arrangement of alphabets 'DGO' from 'GOD' to 'DOG' involves the disappearance of the word 'GOD'. It is obvious that a bangle and a necklace which are distinct wholes require different kinds of arrangement of parts of gold. If a woman possessing bangles wants a necklace to be made out of them the gold-smith melts the gold in the form of bangles which leads to the dissolution of the arrangement (of the parts of gold) that originated bangles and the dissolution of that arrangement necessarily leads to the destruction of the wholes viz., the bangles produced out of it.²⁰ When a bangle is destroyed thus, the parts of gold do exist but the existence of the parts of gold does not imply the existence of the bangle in any form just as the existence of threads after the dissolution of the cloth does not imply the existence of the cloth — the two being essentially different entities. The bangle which is a whole must, therefore, be supposed to have been destroyed totally without leaving any trace behind (*niranvaya-viṇāśī*). Subsequently, when the parts of gold are arranged in a different way conducive to the emergence of necklace, the latter originates.

Similarly change of certain qualities in a whole leads to the total destruction of that whole. The Vaiśeṣikas believe that earth substances undergo changes in certain qualities under the impact of heat corpuscles (pāka). For instance, when an unbaked earthen pot is put in a kiln, its colour changes from black to red under the impact of heat. The Vaiśeṣikas hold the view that what looks like a simple change of colour from black to red, the pot in essence remaining the same, involves total destruction of the unbaked pot and the origination of another pot possessing red colour. They believe that the unbaked pot in the course of its baking gets resolved into its ultimate constituents (atoms) under the first impact of heat corpuscles. A second impact of heat corpuscles acting on the decomposed atoms destroys their black colour. A third impact produces red colour in those atoms. Subsequently the atoms that acquired red colour conjoin in the order of dyads, triads etc., and originate the pot with red colour.²¹ The Vaisesikas are firm that we cannot explain the change of colour from black to red in the entire body of the pot if the destruction of an unbaked pot is not assumed. The view of the Vaiśeṣika is the inevitable outcome of its dictum that the quality of the effect substance is determined by the quality of the cause-substance.²² This is clear from the fact that if threads are white the cloth is white and if they are blue the cloth is also blue. In accordance with this principle it must be admitted that the colour of the pot (whole) is determined by the colour of its parts. If the parts are black, the pot is also black and if they are red, the pot is also red. The point is that we cannot get a red pot from the combination of parts that are black. The colour of the parts of the unbaked pot being black, their conjunction can never explain the emergence of a pot which is red. A red pot is possible only by (the conjunction of) parts that are red. But as long as the black pot exists as a whole intact we cannot account for the change of colour in the (ultimate) constituents of the black pot and unless it is assumed that the ultimate constituents themselves have turned red we cannot explain the red colour of the pot after baking. Thus if we are to account for the red colour of the pot after baking, we must admit the

dissolution of the unbaked pot into its ultimate constituents, the disappearance of black colour from them, the emergence of red colour and their reconstitution in the form of a red pot all occurring under the impact of heat corpuscles.²³

Similar explanation holds good in respect of qualitative changes in all the earth-products. For instance, a mango fruit which is green, hard and sour when it is not ripe at time 't₁' turns yellow, soft and sweet after it becomes ripe at 't₂' the Vaiśeṣikas believe that the mango which was green, hard and sour gets destroyed totally and the mango which is yellow, soft and sweet is altogether a different one (whole).

Thus there seems to be no incongruity in ascribing total destruction (niranvaya-vināśa) in respect of the destruction of effect-substances in the Nyāya-Vaiśeṣika. This is the inevitable outcome of its views that (1) the effect-substances are wholes (avayavins) that originate afresh in their parts and subsist in them and (2) that the parts and the whole are essentially different entities. The followers of the Nyāya-Vaiśeṣika challenging the Buddhist notion of niranvaya-vināśa, could not, however, protect themselves from the 'perils of abrupt recoil.'

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NOTES

- 1 Stcherbatsky—Buddhist Logic, Vol. I. p. 80
- 2 Śārīraka-bhāṣya on 2.2.18
- 3 Vaiśeṣikāḥ khalu ardha-vaināśikāḥ, te hi paramāṇv-akāśa-dik-kālatma manasāṁ ca sāmānya-viśeṣa-samavāyanāṁ ca guṇānāṁ ca keśāṁcin nityatvamabhyupatya śeṣānāṁ niranvaya-vināśam upanyanti, tena te Ardha-vaināśikāḥ. Bhāmātī on 2.2.18.
- 4 Nyāya Sūtra 4.1.14
- 5 Nyāya Bhāṣya 4.1.18; 3.2.17
- 6 Nyāya-vārttika 4.1.18
- 7 Nyāya-vārttika-tātparyatīkā 4.1.18
- 8 Abhede hi kārya-kāraṇayoḥ kāryanaśopī kāraṇarūpeṇa tiṣṭhati iti niranvaya-vināśaḥ; bhede tu niranvayaḥ iti. Kalpataru on Bhāmātī on 2.2.18.
- 9 Yoga Bhāṣya on 4.12; Bhagavad Gītā, 2.16.

- 10 Non-existent stands for the prior-non-existent entity (prāg-abhāva) but not an unreal entity like sky-lotus (atyantabhāva).
- 11 Vaiśeṣika Sūtra 1.1.9.
- 12 Ibid., 1.1.10.
- 13 It is significant to note that the inherent cause continues to exist intact even after the emergence of the effect constituting the substratum for the effect to subsist in. The peculiar feature of the Nyāya-Vaiśeṣika system is that it is not only qualities (guṇaḥ) actions (kriyā) etc., but also all the effect-substances require a substratum to reside in (praśastapāda Bhāṣya, p. 19). The Buddhists believe that the cause gets destroyed totally before the effect comes into existence.
- 14 Praśastapāda Bhāṣya, p. 324.
- 15 Effects need not be substances like cloths. They may be qualities (guṇaḥ) or action (kriyā) or destruction (dhvāṁsa).
- 16 Mukṭavālī on verses 112-113.
- 17 Dinakarī, p. 43.
- 18 Yekavayavavibhage tu dravyānivrṭtau śeṣāṇi dravyāni dravyāntaram ārabhante (iti nikriyanam ārambhah.) Nyāya-Varttika 4-1-21.
- 19 Kiraṇavālī, p. 188; Upaskara on 7.1.6.
- 20 The arrangement (of the parts) that gives rise to a particular whole is called asamavāyi-Kāraṇa. There is a rule that the destruction of asamavāyi-kāraṇa leads to the destruction of the whole born of it. (Asamavāyi-kāraṇa-nāśasya dravya nāśajanakatvat Dinakarī, p. 42).
- 21 Praśastapāda-Bhāṣya, p. 107
- 22 Vaiśeṣika Sūtra 2-1-24.
- 23 The Nyāya, however, does not accept the Vaiśeṣika view. It contends that the change of qualities under the impact of heat (pāka) takes place in an object that structurally remains the same. The Nyāya view is called piṭharapāka-vāda. The Vaiśeṣika view according to which qualitative changes take place under the impact of heat in the individual atoms is called pīlupāka-vāda.

THE PHILOSOPHY OF ŚĀṆKARĀCĀRYA —A REAPPRAISAL—

I

First of all let me express my sincere gratitude to the authorities of Poona University, particularly to Professor Barlingay, for having given me this opportunity to exchange my thoughts with those of the learned scholars here regarding the philosophy of Śāṅkarācārya which occupies a unique place in the history of human thought.

The Advaita as propounded by Śāṅkara is as old as the Upaniṣads and yet it has such a charming freshness about it which attracts the thinkers all over the world. In India itself numerous interpretations of Śāṅkara Vedānta have evolved during the generations of the past. It becomes really difficult, if not impossible, to pinpoint the exact significance of Advaita. Any approach to Advaita may be considered inadequate for that matter. And what is more, there is some strangeness about the Advaita doctrine. On the one hand the Advaita Vedānta of Śāṅkara has been extolled as one of the most perfect manifestations of philosophical genius. In the words of Thibaut, "the doctrine advocated by Sankara is, from a purely philosophical point of view and apart from all theological considerations, the most important and interesting one which has arisen on Indian soil."¹ And according to Radhakrishnan, "its austere intellectualism, its remorseless logic, which marches on indifferent to the hopes and beliefs of man, its relative freedom from theological obsessions, make it a great example of a purely philosophical scheme."² Tradition honours Śāṅkara's Advaita by comparing it with a lion to be contrasted with other systems of thought which are nothing but jackals as it were.³ On the other hand the Advaita of Śāṅkara has been caricatured to an extent when one begins to suspect whether the caricature itself may not be the reality. Only a few days back during an All India Seminar in philosophy at Viśva

Bhāratī University where I was one of the participants, one scholar remarked that the māyāvāda of Śaṅkara with its unswerving allegiance to the authority of the Vedas is mainly responsible for the sad plight of Indian philosophy today. The statement of Śaṅkara "Ślokārdhena pravakṣyāmi yaduktam granthakoṭibhiḥ, Brahma satyaṁ jagan mithyā jī'o brahmaiva nāparaḥ." made perhaps in a lighter vein just like the popular interpretation of Einstein's theory of relativity, has been taken too literally by many. If the whole of Śaṅkara's Advaita can really be summarised in catchwords such as that the world is mithyā or māyā, one can very well imagine to what a ridiculous stature the Ācārya is reduced. The poet's remarks in another context, "One word is too often profaned for me to profane it, one thought too falsely disdained for thee to disdain it", can easily be seen to be true of Advaita as of no other philosophy of the past. But is there anything more than this popular interpretation of Advaita ? Sometimes people professing to be more serious about Indian philosophy and culture feel dissatisfied with this popular representation of Śaṅkara and declare that Śaṅkara has been gravely misunderstood, that there is something deeper, something more subtle, about his philosophy, but when they are asked to pinpoint the exact significance of Advaita they simply flounder, and do not know their way about, lost in an intransigent forest as it were, and what is more, sometimes they also revel in this situation and call it mysticism, wisdom and what not. Plato's remarks concerning the sad plight of philosophy at the hands of its followers are so true also of Advaita Vedānta. "Not that the greatest and most lasting injury is done to her by her opponents, but by her own professing followers."⁴ There is thus a strangeness about Śaṅkara's Advaita which has attracted the great intellectuals of the past and present while at the same time repelling many, but the situation all along seems to be somewhat as the Bhagavad Gītā says; "Āścaryavat paśyati kaścīd enam, āścaryavad vadati tathaiva cānyaḥ, āścaryavaccainam anyāḥ śṛṇoti, śṛtvāpyenam veda na caiva kaścit."

For my part, since my post-graduate days at the University of Allahabad, when I was doing a special study of the

Advaita Vedānta, when the greatness of Śaṅkara was almost literally being injected into our minds because of the prevalent tradition in that University of A. C. Mukerjee, a name well known and held in a high esteem in the history of Indian philosophy, I have been incessantly worried about the exact significance of Śaṅkara Vedānta and the value of his contribution. Even now I remember my feeling of dissatisfaction in these days, when I had a chance of going through the original works of Śaṅkara, with the arguments put forward by him in his commentary on the first aphorism of the Brahmasūtras in order to establish the self-evident character of the self. "Every one", says Śaṅkara, "is conscious of the existence of his self, and never thinks 'I am not'. If the existence of the self were not known, everyone would think 'I am not'!" His own words in this connection are: "Sarvo hyātmāstitvaṁ pratyeti, na nāham asmīti, yadi hi nātmā stitvaprāsiddhiḥ syāt sarvo loko nāham asmīti pratiyāt". I still remember having raised my doubts regarding the implication of this argument. This very doubt was later on confirmed and it gradually dawned on me that Śaṅkara has been misunderstood by one and all in so far as they have taken him to have discovered some new fact, albeit of a different kind. His was not a factual discovery in the sense in which a scientist may discover some new level of facts for it was not his concern. This I did point out, through a linguistic analysis of certain statements of Śaṅkara, in my paper "Doctrine of self in Absolute Idealism (An Examination of the views of Śaṅkara and Bradley)" which was read before the Cuttack session of All India Philosophical Congress. Even the argument for the undeniability of the self, when Śaṅkara argues for example that the self cannot be denied because it is the very self of the denier (Ātmanāś ca pratyākhyātum aśakyatvāt, ya eva nirākartā tasyaivātmavāt) is some-what queer and has a certain deceptiveness about it like the cartesian "cogito ergo sum", although this is the very argument which was made much of by Professor A. C. Mukerjee in his **Nature of Self**. That this does not prove the existence of an immutable self, that this does not point to any indubitable fact except in a trivial sense is what occurred to me even long before I got

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acquainted with the Ayerian criticism of the "Cogito" and this constitutes the subject matter of my above mentioned paper. To put it in the language of Ayer, what Śaṅkara "thought that he had shown was that the statements that he was conscious, and that he existed, were somehow privileged, that for him at least, they were evidently true in a way which distinguished them from any other statements of fact. But this by no means follows from his argument. His argument does not prove that he, or any one, knows anything.....It is of interest only as drawing attention to the fact that these are sentences which are used in such a way that if the person who employs them ever raises the question whether the statements which they express are true, the answer must be yes. But this does not show that these statements are in any way sacrosanct, considered in themselves."⁵

But now very naturally the question comes to the mind—Is that all about Śaṅkara? And in that case, where does his greatness lie? Perhaps, it may be said, he is simply a mediocre on whom greatness has been unduly thrust or his philosophy is too great to have been properly understood or appreciated by any of us. How to decide? What is the criterion? The first alternative is no doubt difficult to swallow, but at the same time a sort of mystifying greatness also will not do. During all these years when I have gradually matured due to my association with the great thinkers of both the present and the past it has throughout been a cause of genuine worry to me and I cannot say that even now I have comprehended the real significance of the writings of the Ācārya. For one thing, his style though lucid and not very difficult to understand leaves so many issues undecided and as open questions. It is in this background that one can understand how philosophers of very different and even sometimes antagonistic outlook have professed their allegiance to the master. Padmapāda, Sureśvara, and Vācaspati are as different in their approach from one another as philosophers can be and yet they all acknowledge Śaṅkara as their guide. Śaṅkara's Philosophy has been interpreted both as a grand system of metaphysics and also as anti-metaphysical in character. It is not for nothing again that some have read nihilism between

the lines of Śaṅkara. His writings are no less open to an interpretation from the standpoint of value, or even from the existentialist point of view. Recently an interpretation from the linguistic stand-point has also been attempted on Śaṅkara.⁶

I do not know whether this is a sign of greatness, whether, as Potter says, "the greatness of a piece of writing, be it philosophical or literary, is proportionate to the number of different meaningful interpretations which can be found to be consistent with the text"⁷ But this surely testified to the highly thought-provoking and richly suggestive character of the writings of Śaṅkara. He seems to leave many things to be filled up by our own imagination and that is why it makes the task of anyone who is keen to be true to the significance of his writings, without colouring them by his own ideas, a very challenging one. In what follows, I shall try my best to strictly adhere to the original writings of Śaṅkara, as far as possible so as to find out the real significance of his thoughts, but I cannot guarantee that some of my own ideas, belonging to a much later generation as I am, may not colour my description and evaluation of Advaita, and I hope to be excused for any such un-intentional transgression on my part. At least, I may hope that my work will be of interest as a fresh approach to the philosophy of Śaṅkara.

II

The Concept of Liberation

Almost all systems of Indian philosophy as is well known consider mokṣa or liberation to be the ultimate end of human existence.⁸ It is considered to be the niḥśrey. sa i.e. the highest good as distinguished from the abhyudaya i.e. the worldly prosperity. It is called by different names in different systems of Indian philosophy, e.g. mokṣa, apavarga and kaivalya. Like other Indian philosophers Śaṅkara also concerns himself with this question of liberation. He starts his commentary on the Brahmasūtra with a description of avidyā or adhyāsa only because through its destruction mokṣa can be realised. His Upadeśasāhasrī begins with an explanation of the method of instructing the means to liberation. His opening

words run as follows: "Atha mokṣasādhānopadeśavidhiṃ vyākhyāsyāmo mumukṣuṇām śraddadhānānām arthinām arthāya." All this shows what the primary concern of the Ācārya as a philosopher was. Considering the general trend of the Indian Philosophy and philosophers this of course is nothing new of startling. But the conception of liberation which we find in the writings of Ācārya is undoubtedly unique in the history of Indian philosophy, next only perhaps to that of Yājñavalkya in the Bṛhadāraṇyaka Upaniṣad. Yājñavalkya's conception of liberation however requires much of excavation work before it can be rightly grasped and I have tried to do some of this work myself in my presidential address for the History of philosophy section of the Indian philosophical congress to be held at Kanpur this year.¹⁰ But what Yājñavalkya wanted to hint at during the age of the Upaniṣads was firmly grasped and unerringly pointed out in very clear terms by the Ācārya alone who therefore may in this sense be regarded as a true heir of the Upaniṣadic tradition. Liberation all along throughout the history of Indian philosophy, barring certain exceptions, has been regarded as a sort of ideal and coveted state to be attained hereafter either through action, devotion or knowledge. Some have taken it to be a state of bliss while some others take it to be a state where there is cessation of all sufferings (cf. Sāṅkhya-Sūtra,¹¹ atha trividhaduḥkḥatyantaniṣṭhīratyānta-puruṣārthaḥ). Some Indian thinkers have taken it to be a sort of spiritual, religious, goal where the individual spirit is united with the universal self or the Jīvātma is in communion with the God. Some other thinkers consider it to be a state of isolation (kaivalya) for the self when the self gets dissociated from the clutches of Prakṛti as it were. But howsoever it may have been conceived it is a state to be attained, or better the highest value to be realised, by us through our work, religious devotion, or right knowledge. Even knowledge is supposed to be a mere means for the attainment of this practical goal. Indian philosophy is thus distinguished as being practically orientated from the philosophies of the West which pursue knowledge for the sake of knowledge and are therefore considered theoretical. Indian philosophy is either condemned or extolled

mainly on this ground according as it suits one's purpose. But this emphasis on the practical character of Indian thought, though not entirely baseless, is due to a lack of proper to appreciation of Śaṅkara's contribution to Indian thought. Śaṅkara is emphatic on the point that philosophy is concerned with mokṣa only in the sense of Brahmajñāna which is vastutantra, that is it must be in accordance with the thing as it is, not with dharma which is a practical goal to be attained by our personal efforts through some practical guidance (Puruṣa-vyāpāra-tantra and codanā-tantra). Jñāna which is the proper concern of Philosophy has an inexorable character about it which is lacking in any practically orientated study (na vastuyāthātmyajñānam puruṣabuddhyapekṣam, puruṣādḥinātmayābhāc ca kartavyasya, kartumakartum anyathā vā kartum śakyam laukikam vaidikam ca karma, Jñānam tu pramāṇa-janyam, pramāṇam ca yathābhūtvastuviṣayam, ato Jñānam kartumakartum anyathā vā kartum asakyam). Śaṅkara's concern for liberation thus is reduced to his emphasis on Jñāna. Mokṣaśāstra or Philosophy is concerned with what is and not with what ought to be performed, with Brahman, which is bhūtavastu as distinguished from dharma which is bhavya. Śaṅkara's most significant contribution thus lies in giving a theoretical, philosophical, turn to the practically orientated conception of mokṣa. He for the first time teaches that liberation is not a state to be attained or achieved, that it is neither heya nor upādeya (aheyānupādeyavastuviṣayatvāt), that it is natural (svābhāvika) and unchangeably eternal (kūṭasthanitya). No specific type of activity or devotional practice is needed to attain liberation, for it is not the result of any activity or devotion (Tasmā jñānam ekam muktva kriyāyā gandhamātrasyāpy anupraveśa iha nopapadyate)

Brahmajñāna, knowledge of Brahman, even is not a means for liberation in any ordinary sense according to Śaṅkara for jñāna itself is liberation. Brahmabhāvaś ca mokṣaḥ, Śaṅkara tells us, and "Brahma veda brahmaiva bhavati" is quoted by him in support of his view that there is no gap between Brahma vidyā and mokṣa. It has often been misunderstood that according to Śaṅkara, jñāna is a mere means of

liberation. But it is more appropriate to say that liberation, according to Śaṅkara, is nothing but jñāna or illumination. Śrutayo Brahnavidyānantaram mokṣam darśayanty madhya kāryāntaram vārayanti, as Śaṅkara would tell in his commentary on Brahmasūtra, I.1.4. It is true that at places Śaṅkara speaks of jñāna as a means to liberation e.g. when he says "Niḥśreya-saphalam tu brahnavijñānam" in his commentary on Brahmasūtra I.1.1 or when he says "mokṣasādhanaṁ jñānam" in Upadeśasāhasrī. But there it should be taken as a mere concession to the popular way of expressing the idea and moreover the context in which such statements are made should never be lost sight of. In the Upadeśasāhasrī for example jñāna as an instrument of mokṣa can only mean the bookish knowledge of Brahman or Vākyaḍ vākyaṛthajñāna obtained through Śravaṇa only which is to be firmly entrenched in the mind of the listener through manana and nididhyāsana finally culminating in Brahmajñāna in the sense of Brahmā-vagati or the full comprehension of Brahman. Tadidaṁ mokṣa-sādhanaṁ jñānam..... tyaktaputravittalokaīṣaṇāya pratipanna-paramahamsa pārivrajyaya vidhivad upasannāya sisyaaya..... parīkṣitāya brūyāt punaḥ punaḥ yāvadgrahṇam dṛḍhībhavati, says, Śaṅkara in that very context, or as is wellknown, "Śro-tavyo śrutivākyebhyo mantavyaś copapattibhiḥ, matvā ca satatam dhyeyaḥ ete darśanahetavaḥ." And in the commentary on first sūtra "Athāto Brahmajijñāsā" Śaṅkara being primarily interested in showing the difference in fruits of dharmajijñāsā and Brahmajijñāsā naturally talks of mokṣa or niḥśreyas as the fruit of Brahmajñāna, just to contrast it with abhyudaya or worldly prosperity which is the fruit of dharmajñāna. As a matter of fact however, there is nothing more to be aspired for beyond Brahmajñāna, be it a vaikunṭha, a state of kaivalya, ānanda (bliss) or nirvāṇa (extinction). Illumination or jñāna is freedom and it itself is bliss or ānanda. Where jñāna is used in Śaṅkara Vedānta as a mere means or pramāṇa for Brahmāvagati as for example when Śaṅkar says jñānena hi pramāṇena avagantum iṣṭam brahma, there jñāna to my mind should be taken as a mere word to word, bookish, understanding of Brahman from the śāstra i.e. vākyaḍvākyaṛtha jñāna. In that sense alone, Brahmajñāna and Brahmāvagati

can be distinguished from each other, for otherwise jñāna in the sense of aparokṣa jñāna is certainly indistinguishable from avagati, and brahmāvagati or jñāna in this context should mean an immediate and full comprehension of the nature of Brahman which constitutes the puruṣārtha or the end of man and is identical with mokṣa or liberation (Brahmāvagati_{hi} puruṣārthaḥ).

Now the question naturally arises, what exactly is the nature of Brahmāvagati which is identical with mokṣa and constitutes the puruṣārtha? At another place Śaṅkara speaks of Brahmajñāna culminating in anubhava (Anubhavāvasānatvāt Brahmajñānasya). Vacaspati takes both anubhava and avagati to mean sāksātkāra.¹¹ But is it Brahmasāksātkāra in the sense of a sort of mystical vision of a being called Brahman? This seems to be the popular notion prevalent in the history of Indian thought. Radhakrishnan for example speaks of anubhava as an intuitional consciousness.¹² Thibaut also translates anubhava as intuition. But I fail to see why the words avagati and anubhava used by Śaṅkara or even sāksātkāra of Vacaspati be interpreted to mean a sort of direct perception through a third eye (Divya Dṛṣṭi) as it were. It is simply due to the misconception of Brahman as a sort of supramundane object to be known only through an intuitive mystic experience. But Śaṅkara's Brahman, it should be borne in mind, is not at all an object, whether mundane or supramundane. It is aviśayāntahpati. The distinction drawn by Śaṅkara between mere jñāna and avagati or anubhava of Brahman can be properly understood not by reference to mystic intuition over and above the ordinary understanding of objects but by bearing in mind that Śaṅkara was distinguishing between mere understanding of the meaning of the Śruti passages (ie. mere book-learning) and the full comprehension of their import culminating in an immediate apprehension of the truth. That is how one can understand his condemnation of the Vidvas (one who knows) one who is learned in the Vedānta (vedānta-nayāntadarsin) as he calls him) in Vivekacudamaṇi¹³, while in another sense vidvas may also refer to a Brahmajñānī in the sense of one who has Brahmānubhava, for example when he speaks of viduṣaḥ

sarvapravṛttisambandhaḥ in his commentary on Brahmasūtras I. I. 4. It is of course true that Śaṅkara himself speaks of Brahmadarśana on certain occasions which one may be inclined to take in the sense of mystic vision of Brahman, as for example when he says in his commentary on Brahmasūtra, I. I. 4. "Bramadarśana-sarvatmabhavayormadhye karyāntara-varaṇāya". But we have not to forget that Śaṅkara takes the Upanšadic passages like "Yatra tvasya sarvamātmāivābhut tatra kenakaṁ paśyet kena kaṁ vajāṇiyat" very seriously and therefore Brahmadarśana here can only be taken to mean an immediate apprehension and full realisation of the truth, and this realisation or comprehension is attained according to Śaṅkara not by any intuition but by the consideration of the meaning of the Vedantic statements or vākyārthavicāraṇa as Śaṅkara would have it. For, to say that somebody knew something by intuition is, as Ayer would let us know, "to assert no more than that did know it, but that we could not say how... Words like 'intuition...' are brought in just to disguise the fact that no explanation has been found."¹⁴ Śaṅkara far from being mystical in his approach to Brahmāvagati states in clear terms that the comprehension of Brahman is effected by the ascertainment, consequent on discussion, of the sense of the Vedānta statements, not either by inference or by other means of right knowledge (Vākyārthavicāraṇādhyavaśānanirvṛtta hi brahmāvagati nānumānādi pramāṇāntaranirvṛtta). The significance of these remarks of Śaṅkara to my mind have not been properly understood and assessed, for the proper understanding of this statement of Śaṅkara should dispel once and for all the illusion that Śaṅkara is a mystic philosopher talking of a sort of supramundane reality to be known by intuition. That Śaṅkara here is drawing our attention to the philosophical enlightenment which can be only obtained through an analysis of the function of language can easily be seen once we get rid of the deep-seated misconception on Śaṅkara as a mystic philosopher. The emphasis on vākyārtha vicāraṇa is to my mind an emphasis on linguistic analysis as a means of philosophical enlightenment called Brahmāvagati which liberates us.

A sort of picture thinking is associated with any form of

mysticism or a metaphysical system traced on speculation. That Śaṅkara was dead against any such speculative metaphysics is evident from the fact that he frivolously deals with different metaphysical systems of his time and sometimes one wonders how he chooses the analogies and examples that are better suited to either pariṇāma doctrine or the līla theory of creation with which he has no genuine sympathy with a view only to refuting the speculative systems of his opponents. For example, he in his commentary on "Lokavattu līlakaivalyam" in Barhamasūtras 2. 1.33 speaks of the world as being created by Brahman in sport as it were and compares it with the sport of a king whose desires are all fulfilled. He gives the examples of the unconscious hair and nails growing on the body of conscious human beings in his commentary on the aphorism "Dṛśyate tu" in Brahmasutras, 2.1.6. The way he speaks of the spontaneous transformation of milk to curd or of water to ice just to explain how the aidless Brahman can be the cause of the world in his commentary on Brahmasutras 2.1.24 can only be understood if we bear in mind that he was simply setting one system of speculative metaphysics against another, viz, that of Sāṅkhya, just to point out how different self-consistent metaphysical systems can be made intelligible on the basis of different assumptions, and that is why there was no sufficient reason according to him why any system of metaphysics be considered superior to the other. It is true that he had a greater sympathy with the theory according to which an intelligent creator i.e. Brahman is both an efficient and material cause of the world (Abhinnaṇimitta upādāna kāraṇa) on the basis of which he refuted other systems of speculative metaphysics like that of Sāṅkhya and Vaiśeṣika. But this sympathy with Brahma-kāraṇavāda, with the theory of Brahman as the cause of the world, lasted with him so long as he could criticise other systems of speculative metaphysics on its basis and find internal inconsistencies of those systems. But when the internal consistency of Brahma-kāraṇa-vāda itself was in question we find in almost all cases two distinct strands of thought in him. He wants to prove that there is no inconsistency in the Vedānta philosophy, na hi asmākaṁ

darśane kincid api asāmañjasym asti or anatisāṅkāṇīyam idam aupaniṣadam darśanam as he tells us, by taking resort, at first and as it appears to me playfully, to certain examples and analogies as against the counter-examples of the opponents as is evident for example from what he does in his commentary on Brahmasūtras 2.1.13. Here he tries to show that the ordinary distinctions between the enjoyers and the objects of enjoyment do not vanish altogether even if the world is nondifferent from Brahman just as the waves, forams, and bubbles etc. do not pass over into each other although they are non-different from the seawater. But this is only a half-hearted attempt on his part to defend his philosophy as against the attacks of his opponents. It is as if Śaṅkara declares in a lighter vein—If you can cite examples and give analogies from the empirical world to prove your system of speculative metaphysics to be the most valid one, I can cite as many counter examples and may give as many counter analogies to prove Brahma-kāraṇa-vāda. But that is not all. There is always a second and a more significant strand of thought in Śaṅkara. And this comes to our view when we find him, in the face of his opponents, switching over to what is well known as his pāramārthika viewpoint, i.e. his genuine philosophic stand, when, for example, he propounds the theory of Brahman as the only reality, leaving no scope for Brahmakāraṇavāda or any speculation for that matter about the origination of the world, be it from Brahman or from some other source.¹⁵ That may be regarded as the Brahma-Vāda of Śaṅkara. This knowledge of Brahman which Śaṅkara propounds as the highest knowledge is arrived at by looking into how different varieties of language function, not by searching in the empirical world for examples supporting a system of speculative metaphysics. Śaṅkara's Brahmavāda is no doubt based on certain assumptions of his own as will be evident in the sequel, but it is definitely not a system of speculative metaphysics or mystic thought. Potter's following remarks about the Advaita of today are true of the master's own writings more than of any one else:—"As Advaita develops there is a growing awareness that the only proper function of the philosopher's tools is the production of greater maturity — greater

readiness for freedom-by the use of negative dialectic and subtle readings of the scriptures. Positive theories or systems become **passe**. With this development Advaita begins to take on the look that it has come to have today, that of an eschewal of systematic philosophy rather than an espousal of it".¹⁶ But to me it appears that it is Śaṅkara himself rather than any one else in particular belonging to his camp who is responsible for this eschewal of systematic philosophy rather than an espousal of it. The search for absolute certainty in knowledge which Śaṅkara puts in an ontological mode of speech as a search for the reality which is never sublated in past, present, and future (Trikalābādhitā)¹⁷ makes him arrive at Brahmajñāna as the highest form of knowledge through an analysis of language which is intended to make us free from the jungle of words, śabdajālaṁ mahāranyaṁ cittabhramaṇa-kāraṇam as Śaṅkara would say,¹⁸ and the illusion of differences (bheda) created by them. It is only in the light of what has been stated above can one understand the exact significance of Śaṅkara's criticism of tarka in his commentary on the Brahmasūtras 2.1.11. To my mind it appears that Śaṅkara here is only criticising tarka in the sense of speculation or metaphysical logic leading to the establishment of a speculative metaphysical system. His own words in this context are very significant indeed. Niragamaḥ puruṣotprekṣāmātranibandhanās tarkā apratiṣṭhita bhavanti, utprekṣāyā nirāṇ kuṣatvāt, says Śaṅkara. Utprekṣā therefore or bare speculation, looking up as it were in imagination (Utprekṣaṇa), not reasoning, which is being denounced, here. Śaṅkara very clearly points to the controversial and inconclusive nature of such metaphysical reasoning, or Tarkajñāna as he calls it, leading to diverse rival systems of metaphysics as distinguished from what he calls samyak jñāna which never fails.¹⁹ This clearly shows what according to Śaṅkara is the aim of philosophy or philosophical knowledge. Philosophical knowledge must give us absolute certainty and the before it can only concern itself with that which never changes. This one can not get through speculation about the origin of the world or something of the sort but only through vākyaarthavacaraṇā. The remarks of Wittgenstein in another context may not be

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quite in appropriate even here. "A picture held us captive and we could not get outside of it". We certainly cannot get out of it by setting up a rival picture but may hope to get out through an analysis of how language functions, that is through linguistic analysis or vākyarthavicarana.

III

The significance of vākyarthavicaraṇa

What then are we to understand by vākyarthavicaraṇa, the consideration of the meaning of the statements. It is of course the Vedāntic statements that are meant to be analysed here because Śaṅkara's immediate preceding statement runs as follows: Vedāntavākyaṇi hi sūtrair udāhṛtya vicāryante. If Brahmajñāna which constitutes the highest end cannot be obtained either through speculation, perception or inference, are we then to understand that a mere study of the Vedānta scriptures will give us that knowledge? Śaṅkara seems to favour the idea of śāstra being the source of the knowledge of Brahman. His remarks like śāstrā-deva pramaṇāt jagato janmādi kāranaṁ Brahmādhigamyate, śabdāmulam ca brahma śabda pramāṇakam nendriyādi pramāṇakam tad yathā śabdām abhyupagantavyam, Āgamamātrasamādhigamyaṇ eva tu ayam artaḥ, Tattvajñānam in vedāntavākyaebhya eva bhavati, Āgamavaśeva āgamānusāri tarkavaśena ca etc. seem to betray him as an authoritarian philosopher believing in the supremacy of authority over independent reasoning. And this exactly is how he has been taken by most of his successors, the only difference of opinion being there about the relative position of authority and reasoning in Śaṅkara. Scholars go on arguing whether reasoning has any significant role to play in his system at all. As Śaṅkara is somehow supposed to be a great philosopher, he is just allowed to escape by a sympathetic remark that according to him reasoning is not entirely useless, it has only a subordinate position to authority, being permitted to remain as a handmaid of śruti. But this can at best mean a pyrrhic victory for Śaṅkara the philosopher and nothing more, for once we take such a stand he can no longer be considered a free thinker, and then the question will be only to determine the degree and extent to which he was authoritative....5

rian, that is, to find out how much of his philosophy was fettered by the tradition. But to my mind it appears that Śaṅkara was not at all authoritarian in his outlook. It is true that he refers to śruti passages from time to time and explicitly states that śrutyavagāhyam avedam atigambhiram brahma na tarka-vagāhyam. But he can at the worst be said to have an ambivalent attitude towards śruti. And 'ambivalent' of course is not the proper word for his attitude, for it should be noted that throughout his work he uses the words śruti, āgama and śabda in two different senses without making them explicit because of which there is a scope for lot of confusion. In one sense of the word whatever is said in śruti is evidently not acceptable to him as such. This is the sense in which Śruti is taken as authority, a group of revealed texts coming down to us from time immemorial. In this sense of authority wherever Śruti comes to clash with other means of valid knowledge he suggests that it be taken in a secondary sense." This explicitly shows that Śruti in the sense of authority is merely subordinate to other means of valid knowledge according to Śaṅkara. But there is another sense in which śruti alone can give us that enlightenment which is called mokṣa or liberation. Śruti in this sense is a critical study of different forms and functions of language. Śaṅkara speaks of different types of language such as vidhi vākyas or sentences concerned with codanā inducing one to activity, samsargāvagāhi vākyas which are relational and judgemental in character, and akhaṇḍārthaka vākyas or identity-statements. In this context the vedāntic statements are taken for consideration with a view to be enlightened and this critical study is said to be āgamānusarī tarka that is reasoning following the logic of language as it comes to us from time immemorial. That it need not necessarily be a critical study of the language of the Vedas and the Upaniṣads, that even a study of ordinary language makes us see the same truth is evident from the fact that a similar linguistic analysis is made in Vedānta of such secular statements like sōyam Devadattaḥ, daśamas tvamasi etc. to draw our attention to the same truth. The upaniṣadic statements as also such secular statements are approached with the same end in view, i.e. for distinguishing between the referring and

the descriptive use of language so that one can arrive at absolute certainty by concentrating on the statements that refer only without describing and thereby liberate oneself from the vicissitudes (saṁsāra) associated with the descriptive use of language. Vākyaṛthavicāraṇa thus in the context of Śaṅkara means a consideration of the Vedāntic statements by which we distinguish the prescriptive and even the descriptive statements from identity statements such as Tat tvam asi which without any description simply refer or point to the reality thereby giving us absolute certainty. From the standpoint of absolute certainty attained through tat tvam asi the multiplicity created by the descriptive language is said to be based on ignorance. Thus it is not merely the understanding of the **explicit** meaning of **any** sentence of the scriptures that gives us enlightenment. Vākyaṛtha ultimately comes to mahāvākyaṛtha and vicāraṇa is a critical study where we take into consideration not only the explicit meaning but also the implicit significance of a statement, not merely vākyaṛtha but also the lakṣyaṛtha is considered. All the statements of the Upaniṣads are not of the same status. Whenever scriptural passages speak of creation in detail or of Brahmapariṇāma with all its paraphernalia their actual purport according to Śaṅkara is something quite different from what they explicitly stand for. After defending Brahmapariṇāma with the help of the analogy of milk etc. being transformed to curd etc. in his commentary on Brahmasūtra 2.1.25, after explicitly stating that Brahma kṣīrādivad deva divāc canāpakṣya bāhyasādhanaṁ svayaṁ pariṇamamānaṁ jagataḥ kāraṇaṁ iti sthitaṁ, when he is confronted with a dilemma of kṛtsnaprasakti (scope for the entire Brahman being transformed) on the one hand and niravayavataśabdakopa (violation of the scripture declaring Brahman to be partless) on the other, he finally takes resort to his genuine philosophical stand and speaks of Brahmapariṇāma as avidyākālpita or a creation of nescience. All such scriptural passages speaking of pariṇāma are significant according to him only in so far as they make us realise the non-dual self or the identity of the Brahman and the Ātman which alone makes us free. To put it in his own words: Na ceyam pariṇāmaśrutiḥ pariṇāmapratipādanāṛthā, tatprati-

pattau pha'navagamat, sarvavyvahārahīnabrahmātmabhā-
 vapratipādanārthā tveṣā tatpratipattau phalavagamāt. This of
 course they cannot do by themselves but through the help
 of other scriptural statements like "Sa eṣa neti nety ātmā (not
 this, not this)", "Tat tvam asi" etc. The identity—statements
 therefore have a privileged status in Śāṅkara Vedānta so far
 as Brahmanubhava is concerned. They are called akhaṇḍār-
 thaka vākyas to be contrasted with the saṁsargāvagāhi-vākyas,
 though relational in form they simply point to an identity of
 meaning of the expressions used (anyonya-tādātmya). As
 Śāṅkara says in his Vākyavṛtti, "Saṁsargo [vā viśiṣṭo vā
 vākyārtho nātra sammataḥ, akhaṇḍaikārasatvena vākyārtho
 viduṣāṁ mataḥ". The direct meanings of the words 'Thou'
 and 'That' for example in the statement 'Thou art That' being
 mutually incompatible, Śāṅkara suggests that bhāga—lak-
 ṣaṇā should be adopted for the proper understanding of this
 statement. 'Thou' directly signifies Śvetaketu who is consci-
 ousness connected with the internal organ and is also an
 object of the idea and word 'I'. 'That' on the other hand directly
 signifies the omniscient Being having māyā as its upādi
 who is the cause of the universe and is mediately known.
 There is thus an apparent contradiction here. The true meaning
 of the statement is reached only by sublating these differences
 and arriving at an indivisible meaning (akhaṇḍārtha). Here
 language is used in such a way that in the process language
 is lost as it were, for the only function that is left for it is to
 point at or gesture towards the fact without giving any infor-
 mation about it. It is an approximation towards speechless-
 ness, and is therefore free from incompleteness and uncer-
 tainty which are the characteristics of a descriptive lan-
 guage. It is language that creates multiplicity, vācārāmbhaṇa
 as Āruṇi of Chāndogya fame puts it, for certain practical
 purposes and when we get rid of these multiple forms created
 by language through an analysis of the meaning of the mahā-
 vākyas like Tat tvam asi we realise the advaita or non-duality,
 the unity of all existence, whose knowledge alone is absolutely
 certain and self-complete.

But²² as professor Ayer would point out to us, security
 thus attained is sterile. "Philosophers", says Ayer, "have

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been attracted by the idea of a purely demonstrative use of words because they have wanted to make the best of both worlds. They have sought as it were to merge their language with the facts it was supposed to picture; to treat its signs as symbols, and yet bestow upon them the solidity which belongs to the facts themselves, the facts being simply there without any question of doubt or error arising. But these aims are incompatible. Purely demonstrative expressions are in their way secure; but only because the information which they give is vanishingly small. They point to something that is going on, but they do not tell us what it is."²³ This criticism of Ayer is alright as far as it goes, and it can also be of immense value as a criticism of the Advaita in so far as it is mistaken to be a type of speculative metaphysics giving us important informations about a world of reality beside the empirical world which all of us know. But it has little force, it may be said, when applied in the present context, for the *Tattvam asi* here is not meant to be informative at all in the sense in which ordinary language is so. There is thus no question here of trying to make the best of both the worlds. The aim of the philosopher here is to attain a knowledge which is self-complete and absolutely certain, and the knowledge of advaita or the unity of all existence obtained through *tattvam asi* seems to fulfil these demands satisfactorily. Nor can Śaṅkara be taken to task for having only pointed through *Tattvam asi* to the nondual reality without giving any particular informations about it, for merely saying that it exists without saying what it is, for this precisely is what he is interested in and what can possibly be achieved in this context. Any knowledge other than what we derive from **Tat tvam asi** through *vākyārthavicāraṇā* is incomplete and insecure.

But the charge of sterility is still here, it may be said, and there is the further question whether the knowledge obtained through **Tat tvam asi** by *vākyārthavicāraṇā* is knowledge at all? Far from being complete knowledge it seems to run the risk of losing the title of knowledge altogether. In the *Chāndogya Upaniṣad* Śvetaketu after hearing the instruction of his father is said to have known the reality. *Taddhāsyā vijajñāviti*, says the *Chāndogya*. Śaṅkara while commenting on this uses

vijñātavān. But the question is whether Śāṅkara can meaningfully speak of vijñātavān or vijajñau as the Chāndogya would have it in this context. Can Śvetaketu strictly speaking be said to have **known**? The question here is whether an indeterminate apprehension can be taken to be a case of knowledge. If knowledge means knowledge through concepts the possibility of there being an indeterminate, unconceptualised knowledge is ruled out at the outset. It seems queer that someone be said to have knowledge while at the same time being not in a position to tell what it is that he knows. But whatever may be the problem in taking nirvikalpaka as knowledge, there is no such corresponding difficulty in regarding it as a kind of jñāna. For the Sanskrit word 'jñāna' seems to have a wider connotation than its supposed equivalent, 'knowledge', in English; in fact, 'jñāna' is used as a synonym of 'buddhi' and upalabdhi in the Nyāya Sūtras of Gautama²⁴. If jñāna is taken in the sense of upalabdhi or awareness nirvikalpaka or niṣprakāraka jñāna or awareness of something not characterised in any way will not be a logical impossibility even if indeterminate unconceptualised knowledge would be logically impossible in so far as knowledge is taken in a strict sense to imply knowledge through concepts.²⁵ I am therefore to conclude that there is nothing wrong in Śāṅkara using the term vijñātavān or the Upaniṣad speaking of vijajñau in the context of the realisation of the non-dual reality by Śvetaketu, whereas it will be wrong if the English equivalent 'knowledge' is substituted in its place. We may speak of Brahmajñāna or Brahmanubhava but not of the knowledge of Brahman.²⁶ When this is understood, the further question whether such a jñāna (not knowledge) of which Śāṅkara talks is sterile or not is of comparatively lesser importance from the philosophical standpoint, and more a matter of opinion than anything else, for it will depend on the value one attaches to it. Uninformative it definitely is, and what is more, it cannot profess to be informative in the sense in which our ordinary empirical judgments concerning matters-of-fact are. It is vijñāna in the sense of realisation or awareness and it makes little sense to speak of such awareness going wrong or being doubtful which, properly speaking, can only be applied to

statements If I desist from making a statement, how can I go wrong? It is this peculiar immunity from error and uncertainty which makes it covetable from one standpoint while making it appear sterile from another ²⁷

IV

The Riddle of Māyā and Avidyā—A solution

In this context it may not be out of place to say a few words on the famous doctrine of māyā of the Ācārya. This doctrine has been a source of great confusion in the history of Indian philosophy and also a source of amusement for the layman, and yet it is my humble opinion that the significance of māyāvāda has been seriously misunderstood by a number of scholars as also laymen so far as māyā has been taken as an explanatory theory propounded to explain the origination of the universe from the Brahman and consequently Sankara has been accused of intellectual dishonesty in trying to hide his ignorance by the blanket term māyā. One of the great Vedāntins of this century, Raadhakrishnan even, seems to have mistaken māyā to be an explanatory theory and consequently finds fault with it "The theory of māyā," says Radhakrishnan, "serves as a cloak to cover the inner rifts of his system" ²⁸ But to me it appears that this is due to a complete misunderstanding of the programme of Śaṅkara. Śaṅkara was not interested in giving an explanation of the origin of the universe. others have got nothing to do with cosmology or cosmogony "The Vedānta", says prof. Dasgupta, another scholar of eminence, "is both unwilling and incapable of explaining the nature of the world-process in all its details, in which philosophy and science are equally interested" ²⁹ But this again is due to a misdirected approach to the philosophy of Śaṅkarācārya, and this mistake of course is quite natural in view of the fact that Śaṅkara was the first and the only philosopher to have realised that it is not the proper business of philosophers to explain the nature of the world-process in all its details and to revel in theories concerning how it all came about. The question therefore of his unwillingness or incapability for explaining the world-process does not

arise, for he considered the whole thing to be philosophically irrelevant. In his Aitareya Bhāṣya, Śaṅkara explicitly states that different theories of creation are to be taken as mere anecdotes and stories (ākhyāyikā), and are therefore to be taken only as arthavāda. He very lightly disposes of the objection raised by the imaginary opponent (purvapakṣa) regarding certain point in the theory of creation propounded in the scripture on the ground that all other details of creation are also as disputable as the point in question. The Śruti asserts that Brahman after creating the world in all its details entered into the body through the head (Sa etam eva sīmānam vidārya etayā dvārā prapadyata) and the opponent finds this idea not very easy to digest for it makes Brahman appear like an ant entering into a hole as it were, to which Śaṅkara says that there is no point in dilating only on this issue when all other details in the theory of creation propounded by the scripture are equally open to question. All this is not nonsense (anupapanna) however, for the intention of the scripture here is merely to make us realise the Ātman, says Śaṅkara, and we are asked not to take these anecdotes seriously. Ācārya's own words in this context are very illuminating indeed:—"Sarvagatasya sarvātmano valagramatramapravistam nastiti katham sīmānam vidārya prapadyata pipilikeva suṣiram

Nanu atyālpamidaṁ codyaṁ bahu cātra codayitavyam. Akaraṇaḥ sannikṣta, anupādāya kincidlokānasrjāta, adbhyaḥ puruṣaṁ samuddhṛtya murchhayat, tasyabhidhyānān mukhādi nirbhinnam, mukhādi-bhyaścāgnyādāyo lokapalastesam cāśā-nāyāpipāsadisamyojanam.....etat sarvam simavidaranaprave-sasamameva

Astu tarhi sarvam evedam anupapannam.

Na, atrātmāvabodhamātrasya vivakṣitatvāt sarvasyam artha-vāda ityadoṣaḥ.....na hi śratyākhyāyikādi pariñjanat kincit phalam iṣyate". All this shows that according to Śaṅkara philosophy is entirely neutral to any theory of creation and has got nothing to do with an explanation of the world process in all its details. So there was no question in Śaṅkara of giving or trying to give an explanation of the origin of universe through māyā. When māyā was not meant to be a theory of explanation,

the question of its adequacy as a theory does not arise. True, if it were meant to be a theory it would be one of the worst theories of all, for instead of explaining it simply shifts the problem from the mystery of creation to the mystery of the creator. It is of course true that Śaṅkara at many places speaks of māyā as a power of the Lord.³⁰ But this to my mind is simply a concession on the part of Śaṅkara to the popular opinion and nothing more, for the entire conception according to Śaṅkara is avidyākālpa and is therefore to be taken only as loka-vyavahāra. It is Śaṅkara's view that even the Lord depends as Lord upon the limiting adjuncts of name and form, the product of nescience.³¹ When the conception of the Lord itself has its basis in ignorance then the ascription of māyā to the Lord as his śakti can simply be based on ignorance also. It is the descriptive language which is practically orientated and creates multiplicity where there is a nondual reality. Adhyāsa or avidyā consists in this confusion of taking the one nondual reality as many.³² Ignorance of how language creates something where it is not, makes us involved in the multiplicity which has its origin in speech only.³³ Our practical life however is dependent on such a use of language and is therefore called vyāvahārika.³⁴ Vyāvahārika is not nothing, it is practically useful. We classify, discriminate, and categorise for our own practical convenience; the nondual reality however simply remains untouched by all this. (Yatra yadadhyāsaḥ tat kṛtena doṣeṇa guṇena vā aṇumātrenāpi sa na sambadhyate). Ignorance of this nondual reality is all-pervasive and affects one and all, as Śaṅkara says, "vyutpattimatam api puruṣaṇām pratyakṣādivyavhāras tatikālaḥ samānaḥ," and this universality of ignorance is at times pointed out by Śaṅkara through the terminology of māyā. For example, Śaṅkara in his commentary on Kathopaniṣad speaks of māyā as very deep-rooted, incomprehensible, and strange only in the sense that everybody though identical with the ultimate reality is ignorant of such identity.³⁵ The fact that every one sees multiplicity where there is unity, is deceived by varieties of linguistic forms, is called māyā. The further question such as—To whom in particular does this māyā belong or wherefrom does it originate?—is not philosophically significant.

The answer to the question whether *māyā* is identical with *avidyā* or different from it again should be very simple from the standpoint of Śaṅkara although it is a fact that the later Śaṅkarites have raised a storm over this issue. When we concentrate on the ignorance or error of someone in particular we may speak of him as being affected by *avidyā*. When on the other hand we are required to point to the ignorance as it affects everyone in a mass scale there seems nothing wrong in speaking of the whole world being under the spell of a universal magic (*māyā*) as it were so long as we remember that any further reference to a magician (God) wielding this magical power should not be taken too seriously. If there is *māyā* (magical power), there should be a *māyāvī* (wielder of the magical power) no doubt and this *māyā* has no power over the *māyāvī* although it may affect all others and in this respect it may be distinguished from *avidyā* or ignorance which affects the person in whom it is found. But all this is picture thinking, one picture leading to another which may be of value only in so far as it clarifies the point that there is an all-pervasive ignorance, the original sin as it were of christianity, which seems to have a compelling character about it. This does not however permit us to delight in further speculations about its source and its relation, to individual ignorance (*avidyā*), for that will be entering into what Śaṅkara would call the domain of *utprekṣā* (metaphysics) a look beyond which he denounces in very clear terms. The talk of *māyā* or magical power of God is in Śaṅkara Vedānta only an indirect way of saying that everyone is numbed and dumbfounded as it were by the compelling language-habits which create multiplicity. There was thus nothing mystical or mysterious about the *māyā vada* of Śaṅkara. The conception of *māyā* as an "indefinable mysterious stuff", as Prof. Dasgupta³⁰ calls it, might have found a place in the later Advaita; it certainly has no place in the writings of the Ācārya himself.

Now coming to *vidyā* we find that the controversies in later Advaita philosophies regarding the object and locus (*viśaya* and *āśraya*) of *avidyā* have absolutely no place in the writings of the master himself. He is interested simply in pointing to an *avidyā* or ignorance which is all-pervasive and on which the

whole of our practical life is based to the fact that distinctions are created by language which describes and discriminates where actually there is non-duality. What is important from his point of view is to detect this linguistic error, this confusion created by language, or the **linguistic bondage** as we may call it and to try to get rid of it through speechlessness or at least through referring language which approximates to a speechless state. It is simply pointless in that case to ask, To whom in particular does ignorance belong?, whether the error is mine, yours, or has its origination in a superior being called God. One who raises such questions has simply misunderstood the entire programme of Advaita philosophy, for the genetic and metaphysical questions leading to a sort of picture—thinking are of no concern to the philosopher. The question about the locus of avidyā is as fanciful in its implication as the poet's question about the locus of fancy—"Tell me where is fancy is bred, or in the heart, or in the head?" But this certainly is not a philosophically significant question. That the question is not philosophically significant is evident from the frivolity with which the Ācārya sets aside the whole issue in his *Gītā Bhāṣya*. The most illuminating discussion between Śaṅkara and the imaginary opponent in this context runs as follows: "Whose is this avidyā? By whomsoever it is seen. By whom is it seen? As regards this we say—there is no gain in asking the question 'By whom is avidyā seen?' For if avidyā is perceived, you perceive also the one who has that avidyā. When its possessor is perceived it is not proper to ask, 'whose is it?' When the possessor of cows is seen, there is no occasion for the question 'whose are the cows?' The illustration is not analogous to the case in point. Since the cows and their possessors are objects of immediate perception their relation is also an object of immediate perception and so the question has no meaning. But not so are avidyā and its possessor, hence the question is not meaningless. What will you gain by knowing the relation of avidyā to its possessor who is not directly perceived? Since avidyā is the cause of evil, it should be got rid of. He who has avidyā will get rid of it. Why, it is I who have avidyā. Then you know avidyā and the self who has it. (So that your question is mean-

ingless)". (Atrāḥ sā avidyā kasy eti. Yasya dr̥śyate tasyaiva Kasya dr̥śyate iti. Atrocyate—avidyā Kasya dr̥śyate iti praśno nirarthakaḥ. Kathaṁ. Dr̥śyate ced avidyā tadvāntanapi paśyasi, na ca tadvaty upalabhyane sā kasyeti praśno yuktaḥ, na hi gomaty upa'abhyamāne gāvaḥ kasyeti praśno arthavān bhavet. Nanu viṣamadr̥ṣṭāntaḥ, gavāṁ tadvataśca pratyakṣatvāt sambandho'pi pratyakṣa itipraśno nirarthakaḥ syat. Apratyakṣenāvidyāvataḥ vidyāsambandhe jñate kiṁ, tava syāt, Avidyāya anarthahetutvāt parihartavyā syāt. Yasyāvidyā sā taṁ parihariṣyati. Nanu mamaivāvidyā, Jānāsi tarhy avidyā tadvāntaṁ cātmanam.) Gītā Bhāṣya. 13-2.

A similar lack of philosophic concern characterises Śaṅkara's use of pictures such as those of ghaṭākāśa and mahākāśa or of the bimba and pratibimba to illustrate the relation between the jīva and Brahman. Put in the formal made this is a question of comparison between descriptive I or thou statements such as 'I am intelligent,' 'you are healthy' etc. and identity statements such as 'I am that (Ahaṁ Brahmasmi) or 'Thou art that' (Tat tvam asi). Since the later are self-complete in sense and absolutely secure from error, language may be said to have reached its perfection in such statements. And if the identity-statement is taken, as is done by Śaṅkara, to be the ideal limit of language then in comparison descriptive I or thou statements would be nothing but defective or degenerate forms of this ideal limit. Once this is understood, it is immaterial whether one speaks in the ontological mode of jīva as a limitation (avaccheda), reflection (pratibimba) or appearance (ābhāsa) of Brahman. Any picture should do so long as it only helps us understand this and is not allowed to mislead us to make further speculations in the metaphysical domain. The later Advaitins, however, failing to grasp the true purport of the master's writings, search in vain for a picture which can serve as the model for Advaita and finally stake the validity of their theories on one of the pictures or the other. Advaita which may be regarded as a consistent "battle against the bewitchment of intelligence", to use a terminology from Wittgenstein, by means of picture thinking has fallen into disrepute at the hands of lesser geniuses by an admission of picture-thinking through the back-door while

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refusing its entrance in the front. It is no wonder, therefore that Śaṅkara indiscriminately uses the analogies of reflection, limitation, and appearance just to illustrate his point without taking them too seriously. Even Vācaspati who is regarded to be an advocate of limitationism (avachheda vāda) also uses the analogies of reflection at different places. And this is quite proper when we understand that it is not the pictures that are significant in this context so long as we comprehend the nature of Brahman through a critical analysis of the meaning of akhaṇḍārthaka vākyas and get rid of the illusion of multiplicity created by the descriptive language. It is thus that the linguistic philosophy of Śaṅkara is supposed to give us liberation in the form of illumination (Brahmāvagati) not in any eschatological sense. This conception of jīvanmukti as being identical with philosophical wisdom (jñāna) obtained through the critical study of language (the meaning of the identity statements like Tat tvam asi is what is unique in the philosophy of Śaṅkara. One who attains this wisdom does not for that matter become unfit for practical life based on distinctions created by ordinary language; he can go on as usual with his duties and obligations in the world. The only difference is that he cannot be said to belong to the world of multiplicity as before (Na yathāpūrvam Saṁsāritvaṁ śakyam darsayitum). Because of his philosophic wisdom he will have a detached outlook towards the multiple objects of the world which will be taken by him as being only of practical value (vyāvahārika). Vyāvahārika, however, is not valueless it may be useful and the jīvanmukta does not fight shy of this practical utility, he only develops a philosophical detachment for all that is practically useful or preyaś as distinguished from śreyaś as the Upaniṣad would call it. To put it in the linguistic mode, the jīvanmukta is a philosophically enlightened person whose use of ordinary relational language is based not on ignorance but knowledge and full comprehension of the nature and function of language. He is simply free from the linguistic bondage, from being captivated by the pictures created by different forms of language. Such a conception of mokṣa has naturally got nothing to do with the fall of the body; one can be free through jñāna while alive, rather jīvanmukti alone is

intelligible in this content. To utilise certain expressions of Wittgenstein for making the point clear the fly is simply shown the way out of the fly-bottle and the question of its freedom after death is naturally irrelevant here.

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3. Cf. "Tavad garjanti Śāstrani jambuka vipine yathā. Na garjati mahā śaktiryavad vedānta kesari".
4. **Republic**, (Trans.) Jowett
5. A. J. Ayer, **The problem of knowledge** (Penguin Books, 1969) pp. 46-47.
6. Cf. G. Misra, Srimanta Pratap Seth annual lecture on Vedānta Dharwar session of the Indian Philosophical Congress, October, 1969. and his **Analytical Studies in Indian Philosophical Problems**, 1971
7. Karl H. Potter, **Presuppositions of India's Philosophies** (New Delhi, 1965). p. 164.
8. Cf. Vedānta Paribhāṣā, "Iha khaludharmārthakāmamokṣākhyesu caturvidha puruṣārthesu mokṣa evaparama puruṣārthah."
9. Cf. Adhyāsa Bhāṣya, "Asyānarthahetoḥ 'prahāṇāya atmaikatva-vidyā-pratipattaye sarve vedānta ārabhyante
10. Cf. my paper "The philosophy of Aruni and Yajñavalkya—An Analysis" Presidential Address of History of philosophy section of the 46th session of the Indian Philosophical Congress, 1972.
11. Cf. Bhāmatī, 1.1.1. "Na kevalam jñānamisyate kintvāgatim sāk-satkāram jurvadavagati paryantam san" and 1.1.12. "Brahmānubhavo Brahmasākṣātkārahparamapururṣāthah"
12. Radhakrishnan, **op. cit.**, p. 510
13. Cf. Vivekacūḍamani, 162, "Dehendriyādvāsaṭi bhramoditam vidvānāhātām na jahāti yāvat, tāvānna tasyāsti vimuktivārtāpyastveṣ a vedāntanayāntadarṣi."
14. Ayer, **op. cit.**, p. 33.
15. Cf. commentary on Brahma sūtras, 2.1.14. "Anrtatvat kāryavastunah"- "Ekatvamevaikam pāramārthikam darśayati", "Mithyājñāna-vijrmbhitam ca nānātvam" etc.

16. Potter, *op. cit.*, p. 182.
17. Cf. Gīta Bhāṣya "Yad viśayā buddhiḥ na vyabhicarati tat sat". Also Brahmasūtra Bhāṣya, 2·1·11. "Eka rūpeṇa hyavasthito yorhan sa paramārthan, loke tadvisayam jñānam samyaghjñānamityucyate. yathāgnirūṣa iti".
18. Vivekacūḍāmaṇi, 60
19. Cf. Brahmasūtra Bhāṣya, 2·1·11, "Samyagjñāne puruṣaṇam vipratirānupapannā, Tarkajñānānam tvanyonyavirodhāt prasiddhāv iprati patthi."
20. L. Wittgenstein, **Philosophical Investigations**, Sect. 115.
21. Cf. Brahma sūtra Bhāṣya, 2·1·13, "Yadyapi śrutih pramāṇam svavisaṁbhavati, tathāpi pramāṇāntareṇa viśayāpahariṇyapra bhavitumarhati..... Ata idamayuktam yatpramāṇantaraprasiddhārthabādhanam śrutena."
22. Here I have utilised some of the materials of my Presidential address of History of Philosophy Section of the 46th session of the Indian Philosophical Congress.
23. Ayer, *op. cit.* p. 52.
24. "Buddhirūpalabdhiñānamityanarthāntaram" Nyāya sūtras, 1·1·15
25. For a detailed analysis of the problem see my paper, can there be any Indeterminate perception (Nirvikalpaka pratyakṣa)?' **Darshana International**, Vol. X, No. 2, April, 70.
26. It is to be noted however that for the sake of convenience at some places in the present lecture the word knowledge is used in the wider sense of jñāna,
27. It is interesting to note that Śāṅkara himself anticipated and replied to some such possible objection when, for example, he remarks "Naceyamavagatiranarthiākā.....Śākyam vaktum, avidyānivarttipha'adarśanāt"..
28. Radhakrishnan, **Indian Philosophy** Vol. II
29. S. N. Dasgupta, **A History of Indian Philosophy** (Cambridge University press, 1952) Vol. II, p. 73.
30. Cf. Vivekacūḍāmaṇi, 108, "Avyaktānamni, paramośaśaktih ananyavidyā trigunatmika para, kāryānumeyā sudhiyayaiva māyā yayā jagat sarvamidam prasūyate."- and Brahmasūtra Bhāṣya, 2·1·14 "Sarvajñasyesvarasyātmabhūta iva avidyākalpite nāma rūpe..... sarvjña syeśvarasya māyāśaktih prakṛti iti ca śrūtiśmṛtyorābhilāpyete."

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31. Cf. Brahmasūtra bhāṣya, 2·2·14." Avidyākṛta nāmarūpopādhi anu-rodhīśvaro bhavati".
32. Cf. "Atasmin tadbuddhih" Adhyāsa Bhāṣya.
33. Cf. Brahmasūtra Bhāṣya 2·1·14, "Vacaiva kevalamastityarabhyate".
34. Cf. Adhyāsa Bhāṣya, "Tametamavidyākhyamatmānātmano itare-tarādhyāsam puraskṛtya sarve pramāṇa prameyaa vyavahārā laukikā vaidikāśca pravṛttāḥ".
35. Cf. Kathopanīśad bhāṣya, "Aho atigambhira duravagāhya vicitra māyā ceyam yadayam sarvo jantuh paramārthataḥ paramarthasatatto vpyevam bohdyamānoham paramātmeti na grhnati.
36. Dasgupta, *op. cit.*, p. 73.

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SELFCONSCIOUSNESS

(I)

Who am I ? Suppose I "ask myself"¹ this question, and suppose I produce the following answer : "I am R. G., father of L. G., etc." Would this answer necessarily satisfy me? I don't think so, because I could go on to "ask myself"² the further question : "But who is this person of whom I have said that he is R. G., father of L. G., etc. ?" Would the satisfactory answer to *this* question be : "I, myself, the thinker of this as well as the preceding thoughts" ? The really crucial part of this answer is the element "I, myself," because with regard to the "thinker of certain thoughts" I could "ask,"³ again, "But, who is the person of whom I say that he is the thinker of this as well as the preceding thoughts ?" So what are we to say about the thought "I, myself" as an answer—a clinching answer—to the question "Who am I ?". Is it a clinching answer ? To suppose that it is, would involve the supposition that the thought "I, myself", as thought by me, in some way uniquely identified me. And this identification of myself by myself for myself would have to radically differ from the sort of identification of a person—even of it were a unique identification—which depends upon the correct application, vis-a-vis the person in question, of a descriptive phrase or referring expression. The thought "I, myself" would have to be supposed by me to identify me non-descriptively, non-referentially—in *principle* so. (Thus this thought would have to be distinguished from anything analogous to an act of pointing towards a person in order to identify him for a hearer, an act which can always be replaced by an utterance employing a suitable descriptive or referring expression.) But can the thought "I, myself" be said to achieve such non-referential identification ? For only then could it be regarded as a clinching reply to the "self-addressed"⁴ question "Who am I ?"

Another mode of asking the above question is this : Is there a notion of selfconsciousness such that I may be said to be conscious of myself in a way which necessarily involved my thinking of myself *not* as being a creature of a certain sort, but, quite simply, as being "myself", a unique but bare particular—a "soul" ? I am inclined to deny that there is such a notion of selfconsciousness because I am inclined to think that it does not make sense to talk of non-referentially identifying oneself. However, I shall argue that it *is* possible to speak of oneself *imagining* that one was being non-referentially identified by another person, because it is possible to be non-referentially identified by others, and that the notion of selfconsciousness should be regarded as being, at least, the notion of oneself *imagining* that one was being non-referentially identified by another person. I shall also consequently be enabled to argue that this notion of selfconsciousness can be regarded as being equivalent to the notion of *imagining* that one was conscious of another person being conscious of oneself in a way which necessarily involved his thinking of oneself *not* as being a certain sort of creature, but as being "oneself", a unique but bare particular.

(II)

What do I mean by saying that it is possible for one to be non-referentially identified by another person ? Suppose there are three persons, A, B, and C. Suppose A, pointing to C, says to B : " That is C." This would be a case of A identifying C for B. But not *in principle* non-referentially or non-descriptively. A's utterance can always be translated into some such utterance as : " The person standing under the tree over there is C ". Suppose, instead,⁵ that A merely *addresses* B, say by issuing the utterance " B ! " to B. Would A have *referred* to B in conversation with B ? Certainly not ! This is because the possibility of a conversation starting between A and B depends upon the success of A's act of addressing B. And yet A's act cannot fail to have the force of a communicative utterance of the form " Attend to me ! " Now in

so far as A succeeds in addressing B, i.e. in so far as a communicative utterance of the above form may be supposed to have been successfully issued by A to B, A can be said to have non-referentially or non-descriptively—identified B. For B would be brought in possession of the correct answer “He means me” to the question “Who does he mean?”. “He means me” is a thought which B would be logically necessarily brought in possession of as a result of A successfully addressing B. Clearly such non-referential identification is a necessary condition of communication. We could say, equally correctly, that *addressing* (which requires non-referential identification of addressee by addresser) is a necessary condition of communication.

Now I can explain why I said in the previous section that it did not make sense to suppose that one could non-referentially identify oneself. To say this is to say that one cannot significantly be said to “address” oneself. It is because of this belief of mine that I put expressions like *ask* (in relation to the notion of *asking oneself a question*) and *self-addressed* (in relation to the notion of *addressing oneself a question*) inside quotation marks in the previous section. This is because if it doesn’t make sense to speak of addressing oneself, it must also not make sense to speak of communicating with oneself in the literal sense of that expression in any form. However, we do have a use in our language for expressions like “asking oneself a question”, “talking to oneself”, etc. I want now to give an account of the basis of the use of such expressions. Take “addressing oneself”, for “addressing oneself” in some sense or other must be the presupposition of all “self-communication”. Why is the literal use of such expressions as “addressing oneself” not significant? The reason for this is that it doesn’t make sense—and with respect to the question in hand it is quite pointless—to suppose that the self—whatever it is—is non-unitary.⁶ It doesn’t make sense to speak of inviting oneself to attend to oneself⁷. One doesn’t stand in need of being

invited—by oneself—to consider the truth or falsity or obedience-worthiness, etc., of the utterances that one “addresses to oneself.”

However, one can always *imagine* that one was being addressed by another person, or that some utterance or other was being addressed to one by another person. The imagined “other person” here need not be anyone in particular, he could be imagined as being quite anonymous. Thus my thought “I, myself” which I believe uniquely and non-referentially identifies me for myself can be regarded as being equivalent to an imagined addressing-utterance issued by an imagined anonymous speaker to me. Thus the thought “I, myself” or, more briefly, the thought “I” can be regarded *not* as identifying a bare particular—“myself”—but as an act of the imagination which puts me in the stance of an “audience”, thereby enabling me to “weigh” utterances which too I imagine as being addressed to myself: i.e. as an act of the imagination which enables me to think in accordance with the requirements of the logic of discourse which governs the audience-speaker relationship. At this point one might ask: How do I acquire the ability to perform the act of imagination (which makes soliloquy possible) referred to above? I think the answer to this question must be this: I acquire the ability to perform the act of imagination in question *at the same time as* acquiring the ability to *listen* to a real speaker. When, in the course of the process of being inducted into a communicative form of life, I am first successfully *addressed* by a speaker, I must be supposed to be logically necessarily brought in possession of the thought “He wants me to attend to him”. Now being able to think this thought must involve being able to think the thought “me” or “myself” or “I”, i.e. it must involve being able to perform the imaginative act of casting oneself in the role of an audience vis-a-vis an imagined speaker. Thus the word “I” need not be supposed to be the “name” of anything. But it doesn’t follow from this that it connects up with nothing. It connects up with our capacity for soliloquy, among other things.

(III)

In addressing me, you do not refer to me, although you may employ a referring expression for the purpose of addressing me. You may, for instance, say "Mr. Chairman!", which locution involves the employment of the referring expression "Chairman" (not to mention the undoubtedly referring character of the expression "Mr."), and I may well be the Chairman. But you would not have, so far, *referred* to me as the Chairman in conversation with me. Your utterance, involving the utterance of the word "Chairman", would attract my attention to you, but also at the same time to the fact that you were not really trying to attract my attention to yourself in a purely causal fashion (You were not producing the loudest noise that you could produce—something which would attract my attention to you in a much more straightforward manner). It would become clear to me that you were *inviting, soliciting*, my attention—i.e. that you were addressing me. One could also say that your-successful—act of addressing me would make me conscious of the fact that you were conscious of me in a way which necessarily involved your thinking of me, in addressing me, *not* as a certain sort of creature, but as a bare particular—as "myself". (Of course, you would have to take me to be a communicative creature in order that you may be able, in addressing me, to think of me as a bare particular, as "myself"). It would follow from this that my thinking the thought "I", or the thought "I, myself", would involve my imagining that I was conscious of another (anonymous, perhaps) person being conscious of me in a way which necessarily involved his thinking of me as "myself"—a bare particular—and not as a certain sort of creature. I suggest that this is the correct analysis of the notion of selfconsciousness. But the notion of selfconsciousness must also apply to the case where I am *actually* conscious of the fact that another (not anonymous) person is, in addressing me, conscious of me in a way which necessarily involved his thinking of me *not* as a certain sort of creature, but as "myself"—

a bare particular. Thus I am selfconscious when I am actually in a listening-stance vis-a-vis a real speaker, and also when I *imagine* that I am in a listening-stance vis-a-vis an imagined (possibly anonymous) speaker. In both cases I am enabled to think in accordance with the requirements of the logic of discourse.

I think I could maintain that the account of selfconsciousness that I have sought to give is not an eccentric one. Although I have followed different routes of argument, my conclusion is the same as the Kantian conclusion that selfconsciousness is a necessary condition of thinking⁸. What I have emphasized is that thinking has to do with the taking up of actual or imaginative audience-stances vis-a-vis actual or imagined speakers. I have sought to relate the notions of selfconsciousness⁷ and thinking to the public phenomenon of human communication.

I have also sought to give some explanation of the basis of the sense of deep self-acquaintance (not self-knowledge by description but, as it were, self-knowledge by acquaintance) which haunts our mental lives. I have implied that this sense of deep self-acquaintance has to do with our actually or imaginatively taking up audience-stances vis-a-vis actual or imagined speakers. This involves our being conscious, or our imagining that we are conscious, of another person being conscious of us in a way which necessarily involves his thinking of us not as creatures of a certain sort, but as bare particulars—as “ourselves”. Of course it doesn't follow from this that we are bare particulars. But the self-imposed illusion, which lies at the heart of the act of addressing, that one's audience is a bare particular, is a necessary condition of communication.

(IV)

There is a puzzle about dreaming which I feel can be sorted out with the aid of the account of selfconsciousness that I have been trying to develop. The puzzle is this. Why is it that, while

we are dreaming, we are unable to ascribe our dream-experience to ourselves ? The following reflection should help in answering this question : What is it for us to be able to ascribe experiences to ourselves ? Surely our ability to ascribe experiences to ourselves presupposes our ability to soliloquize, i.e. our ability to take up an audience-stance vis-a-vis an imagined speaker or a speaker-stance vis-a-vis an imagined audience (what is expressed in the last part of this sentence is not something I have alluded to in the previous sections, but it can easily be accommodated into my account of the imaginative mode of selfconsciousness). Now we don't *just* soliloquize, we soliloquize under pressure to transform our soliloquies into communications if it becomes necessary to do so. And this is not just a psychological matter. Soliloquizing is preparatory, hypothetical, imaginative, communication. It would follow from this that if we were under no pressure at all to communicate with others, we would not soliloquize. Now it is fair to assume that when we dream (as opposed to day-dreaming—which can take place at night in bed also—and related phenomena) we are sound asleep, i.e. not in a condition in which we can enter into a communicative relationship with anyone at all. Deep sleep unburdens us of the weight of the permanent possibility of communication. It would follow from this that when we are dreaming we do not soliloquize. The dream-thought " I am dreaming " which often occurs to us in a dream is not a piece of soliloquy. For if it *were* a piece of soliloquy, it would be possible, logically, for us to transform it forthwith into a communication. But the possibility of our being able to do this is *ex hypothesi* ruled out by the condition of deep sleep, which is also the condition of dreaming. This is why we are not able to ascribe our dream-experience to ourselves. But it does not follow from this fact that in dreaming we suffer no experiences. Being able to soliloquize is a condition of making our experience intelligible to ourselves, but it is not a condition, I am sure, of the possibility of experience as such. The notion of an unintelligible experience is

not a self-contradictory notion. To return to dreaming. We can say that, because of the absence of soliloquizing, dreaming constitutes an unintelligible experience. However, when we wake up from deep sleep, our capacity for soliloquizing is restored. We are then retrospectively able to cast our unintelligible dream-experience (of which we undeniably have memory-images) into an intelligible, soliloquized, narrative form. This does not of course enable us to say that at some point at night when we were fast asleep we were having so-and-so experiences in the sense that we could have ascribed these experiences to ourselves at the time of their occurrence. Dream-reports are, in this respect, quite different from ordinary memory-reports. What we can say is that it is only in the form of our dream-reports, and their soliloquized versions, that we can make our unintelligible deep-sleep experiences intelligible to ourselves and to others. I find myself able to say only the following by way of anything like a positive pronouncement about the nature of our dream-experiences : that they are a species of hallucinatory experiences which we suffer under a special handicap, viz. the handicap of a total, although temporary, loss of our capacity for soliloquizing, which is the same thing as our capacity for ascribing experiences to ourselves.

Postscript : In saying that dream-experiences are unintelligible to us at the time we suffer them, I do not wish to suggest that they are necessarily a medley of images or something like that. I do not wish to suggest this because, after all, even an experience of confusion is, in principle, self-ascribable. What I mean by saying that dream-experiences are unintelligible is that while we are dreaming we cannot seriously ask, or try to seriously answer, the question "What is going on ?" in relation to our dream-experiences. And experiences which resist interrogative scrutiny cannot be intelligible.

(V)

So far I have been concerned mainly with what might be called the ontological and epistemological dimensions of the

notion of selfconsciousness. But the notion of selfconsciousness also has a moral and political dimension. I shall now try to explore this region a bit.

I have said that being selfconscious is a matter of being able to adopt an audience-stance, actually or imaginatively, vis-a-vis an actual or an imagined speaker. How does one acquire these abilities? One is clearly not born with an operative ability to adopt an audience-stance vis-a-vis speakers. One is *cast* in the role of an audience by others, by one's parents, etc. This activity of casting an infant into the role of an audience—and thereby initiating the process of inducting him into a personal form of life—has morally significant features. You can only seek to cast an infant into the role of an audience by going on trying to “address” it, i.e. by going on trying to solicit, invite, a communicative response from it and not by interacting with it in a purely causal fashion. This being so, attempts to “address” an infant must be characterized by a *minimally caring* attitude towards it. Activity which is *less* caring than this would not be describable as an activity of trying to solicit, as opposed to trying to elicit, a communicative response from the infant. It would simply frustrate the infant, if not kill it off. The acquisition of communicative capacity, upon which the acquisition of personality is logically dependent, is thus the consequence of a *gift* from others, the gift of a minimally caring communicative attitude. Personality-acquisition is not even *in principle* a case of contractually acquiring something. This fact puts one, in so far as one is conscious of the fact that one is a person, under an obligation to *unconditionally* adopt a minimally caring communicative attitude towards anyone who adopts a minimally caring communicative attitude towards oneself. Thus the notion of selfconsciousness and the notion of an (unconditional) moral obligation towards (some) others are logically connected notions. The possibility of altruism is rooted in the nature of selfconsciousness.

But so is egoism rooted in the nature of selfconsciousness, if by egoism is meant an attitude of regarding oneself as valuable, and not simply an attitude of selfishness. How can this be shown in the light of the preceding discussion ? Consider the statement, say made by me, that I am not valuable in any sense at all. Now the making of this statement involves the thinking of the complex thought symbolized by the expression "I". I.e. it involves my imagining that I have taken up an audience-stance vis-a-vis an imagined speaker, i.e. that I am an object of an imagined person's minimal communicative care. But how can I imagine this if I don't value myself at all ! To this question I might reply : "I can't help imagining that I am an object of a minimally caring attitude, but I ought not to". But this will just not do, for this reply equally involves the thinking of the complex thought symbolized by the expression "I". I cannot *selfconsciously* deny that I have some value, because I cannot, selfconsciously, fail to cast myself in the role of an object of a minimally caring attitude. But this is a point in logic. Unqualified self-deprecation, mindless suicide, etc., are undertaken in disregard of this point. Acknowledgement of rationality and pursuit of blind passion are not, unfortunately, incompatible.

Before concluding this section, I would like to draw attention to two important consequences of the conclusion that men cannot help regarding themselves as being valuable in some sense or other. The first consequence is that the existence of such concepts as those of injury, damage, harm, pain, etc. in our conceptual system becomes easily explicable. If I cannot help regarding myself as being valuable in some sense or other, then I cannot also help regarding myself as being "vulnerable" in some sense or other. This connection between the notion of regarding oneself as being valuable and the notion of regarding oneself as being vulnerable can be seen more readily by reflecting upon the connection between the former notion and the notion of regarding oneself as being "precious" in some sense or other. Regarding myself as being

valuable (and in some sense " precious ") I must necessarily find in life actual or possible states of affairs which would be unacceptable to me. Words like " injury ", " harm ", " damage ", " pain ", etc. pick out such states of affairs. I am not suggesting that there must be some unique set of states of affairs which must be picked out by these words. What I am suggesting is that given that human beings necessarily regard themselves as being valuable in some sense or other, they must necessarily find in the world states of affairs—actual or possible—which they would find unacceptable, and that this is the general fact which explains our possession of such concepts of those of injury, harm, etc.

The second consequence of the fact that human beings cannot help regarding themselves as being valuable in some sense or other to which I wish to draw attention is that, given this fact, the " problem of evil "—familiar to students of the philosophy of religion—arises for the agnostic as well as the atheist, and not only for the theist. Regarding myself unavoidably as being valuable in some sense or other, I cannot acquiesce in a merely causal account of my suffering and agony and pain beyond a certain point. (Here I am thinking of human suffering which is *not* the result of man's inhumanity to man). But as an atheist or an agnostic, my protestations (regarding my suffering) would never be able to have an unambiguously literal force for me. But I would not, in logic, be able to refrain from protesting. It would always, *prima facie*, seem legitimate to me to ask the question " Why should I suffer so much ? " I do not know how this form of the problem of evil is going to be resolved. I merely mention it here as a logical consequence of the conclusion that human beings cannot fail to regard themselves as being valuable in some sense or other, and the fact that they suffer beyond endurance.

(VI)

I have said that the acquisition of personality, of communicative abilities, of selfconsciousness, is the consequence of the *gift*

of a minimally caring communicative attention on the part of others. Now these others need not be more than two or three persons. Also the labour that is required for the task of casting an infant in the role of a person is by no stretch of the imagination universal social labour. The acquisition of personality costs very little, it only requires a certain amount of love. It would follow from this that *the fact that I am a person* is not something which I owe to society at large. This is my ultimate theoretical safeguard against the tyranny of the crowd, the majority, *everybody*⁹. Now the facts of human language and personality acquisition may have been different, but the facts to which I have drawn attention in this connection belong to the category of those very very general conditions of human life, acknowledgement of the existence of which is a necessary condition of our ordinary thinking about the world and ourselves.

Granted that the fact that I am a person is not something which I owe to society at large, and so also granted that an anarchist attitude of rebellion against "mass society" has foundations in our condition, it still remains the case that for the full development of my personality, and for its sustenance throughout a life-time, I have to depend upon (increasingly) universal social labour—including the labour of past generations of human beings. This being so, I am also under a deep obligation to contribute my share towards the creation of an equalitarian society. Why an equalitarian society? This is because *qua* human beings, human beings value themselves in a sense in which it is absurd to speak of value-hierarchies. There is no *reason* for me to suppose that I can, in rational argument, convince another human being that he is, intrinsically, *less* valuable than myself. There is a notion of "regarding oneself as valuable" which is connected with the notion of "human personality" in such a way that there can only be an acknowledgement, and no grading, of the intrinsic worth of human beings: and this is only compatible with the ideal of an equalitarian society. This view is a secularization of the religious

theme that God values all men equally. To conclude this section : An anarchist attitude of rebelliousness against mass society is perfectly compatible with the socialist commitment to the task of creating an equalitarian society.

(VII)

I shall conclude this paper with some reflections on the notions of birth and death and their connection with the notion of self-consciousness.

I cannot conceive of my birth or death, nor, to put the matter slightly differently, do I possess concepts of *my birth* or *my death*. But don't I believe that I was born and that I shall die ? Indeed, I not only believe, I know this to be the case. But this is a piece of *general* knowledge which I possess about any member of the human species in which I cannot refuse to be included. I do not come to possess this knowledge by a process of enumeration of the births and deaths of human beings, but on the basis of direct observation as well as information—both scientific and lay—about the nature of a human being construed strictly under the category of “the other” or “the third person”. Under this category a human being is seen as an animal organism of a certain type, an entity of which it makes sense to say that at a certain time it “came into being, i.e. became operative as an animal organism of a certain kind”, and that at a certain time it will “cease to be, in the sense of ceasing to be operative as an animal organism of a certain type”. Now I cannot refuse to acknowledge that I am construable under the categories of “the other” and “the third person” by others, and so I cannot refuse to acknowledge the applicability of the above truths to myself. But I cannot *conceive* of myself as coming into being at a certain time and as something which will cease to be at a certain time. This is because I cannot conceive of myself as “the other”, or as “the third person”. Nor can I conceive of you, while I am seeing you as “the second person”, the recipient of my communicative

actions as well as the issuer of communicative utterances to me, as "the other" or as "the third person". "You" are the bare particular I must think of you as, and not any *sort* of creature, in order for me to be able to address you. And the thought "I", as thought by me, is my act of imagining myself to be a "you"—the recipient of an imagined speaker's act of addressing. Thus you and I are in the following predicament. We, as members of the human species, know that we were born and that we shall die. But as reciprocally related by the communicative relation, we *cannot* conceive of ourselves as having come into being, from nothing, at a certain time, and as being creatures who will cease to be at a certain time. We cannot help—logically cannot help—nursing the illusion of a beginningless and endless existence, but at the same time we cannot fly in the face of scientific as well as commonly observable facts as to the organic nature of oneself seen as "the other". I do not believe that this predicament can be dissolved by an increase in scientific knowledge. Of course, espousal of certain religious doctrines such as those of reincarnation or resurrection amounts to wishing away the predicament. But these religious doctrines bristle with insurmountable difficulties.

(VIII)

If what I have been saying about the notion of self-consciousness, and related notions, is at all sound, then there cannot exist what Stuart Hampshire commendatorily calls "the perfect secluar mind"¹⁰. But this does not land us in the lap of religion. The religious attitude, like the attitude of "the perfect secular mind", does not countenance the possibility that there might lie at the heart of the nature of human life an ineliminable sense of paradox.

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NOTES

1. An explanation of the quotation marks here is given later in the paper.
2. An explanation of the quotation marks here is given later in the paper.
3. An explanation of the quotation marks here is given later in the paper.
4. An explanation of the quotation marks here is given later in the paper.
5. Of course, even in the earlier case A would have to address B. Addressing in a necessary condition of communication. Here I am concentrating on A's act of addressing B for a special purpose.
6. Suppose the self is divisible into two selves. Can either sub-self address itself? The same question reappears.
7. If it did, would not the inviting self have to invite itself to invite the invited self? Infinite regress here.
8. Here, as well as in the other places in this paragraph where the word "thinking" occurs, I should like to qualify and say "thinking which is conducted in accordance with the logic of discourse".
9. In the "collective" sense of this expression.
10. *David Hume, A Symposium*, Macmillan, London, 1963, p. 9.

WILL, WILL, AND MUST

A STUDY IN FAMILY RELATIONSHIPS

Abstract

I propose to do here some philosophically interesting linguistics and then show why I consider it philosophically interesting.

The class of English modal verbs is set up and modal predicates distinguished from their arguments. These may be epistemic or mandatory, intransitive or transitive, binding or releasing. The major subsystems 1, 2, 3, 4, 4a are taken up serially and the distinctions applied to them. Finally the minor performative subsystems 5, 6, 7, 8 are described briefly.

The linguistic nature of these investigations is brought out and described. The philosophical implications of the following features of this system are then suggested : (i) the absence of any serious constraints on the Propositus that constitutes an Argument of the Modal Predicate; (ii) the relevance of tense-considerations in explicating modal sentences; (iii) the interrelations within each subsystem and between subsystems that define how modal sentences can be disputable, refutable, or infelicitous.

It is hoped that this account will induce some fresh digging at the problem.

As many of you are no doubt aware I am no philosopher—not by a professional chalk anyway. Not unless occasionally worrying about problems that customarily get called 'philosophical' entitles one to be taken for a philosopher. Only politeness then will make you hold back the question, What is this professional linguist (for that's what I am) doing here in a gathering of philosophers? I can of course answer this question quite truthfully at a personal level. Well, I can hear myself saying, I'm here

because some philosopher friends of mine have encouraged me to believe that, since language has been worrying philosophers a good deal lately, what a linguist has to say is likely to be of professional interest to philosophers. So I'm here in a sort of representative capacity.

Now I'm sure that philosophers will find such an answer too personal. So let me see if I can't get any philosophical mileage out of this question. I shall therefore offer my guess about the true relationship between formal linguistics and the loosely defined body of activity known as 20th-century linguistic philosophy. Briefly put, while some linguistic philosophers have tried to naturalize ideal languages, other linguistic philosophers have tried to idealize natural languages. In so doing, they are to be credited with or accused of doing linguistics informally—not all the time to be sure, but some of the time. This is especially true of the second group busy holding up ordinary language and saying, Behold the language !

Allow me to suggest that history is repeating itself here. The domains of Natural Philosophy and Moral Philosophy have now been largely annexed by Natural Science and Social Science respectively. As if in recognition of the pioneering work done by philosophers in these fields, the sciences serve philosophy by presenting it with certain brute facts. Let Copernicus propose the heliocentric system, or Darwin biological evolution, or Heisenberg the uncertainty principle, or behaviour scientists various types of conditioning and philosophers sit up and take notice. Ordinary language analysis has already lost some of its charm for philosophers, while linguists are moving into the territory with enthusiasm. The maps that linguists make will presumably continue to be of interest to philosophers at least on two counts—to distil language is to distil the native wisdom of generations of language users and this native wisdom has been brought to bear upon all the principal areas and modes of experience that

A STUDY IN FAMILY RELATIONSHIPS

a philosophers is likely to be concerned about, and, secondly, the design of language itself apart from what language has to 'say' is too important an aspect of characteristically human activity for philosophers to ignore brute facts about language.

Having presented my credentials as it were, let me now put my cards on the table. First, I shall present here an analysis of the English modal verbs. In so doing I shall naturally try to select those aspects of the system that will be of interest to philosophers—I shall not, for example, say anything about the substitution of *shall* for *will* or about the relation between modal verbs and the expression of time or about certain interesting facts about their behaviour in relation to sentence accent. Further, I shall concentrate on the bold features of the modal system, neglecting fuzzy edges, special cases, and the like. Even after selecting philosophically interesting aspects, I shall deal in greater detail with only some of the subsystems, content to present only a sketch of the remaining subsystems. It is in the second part of this study that I shall try to suggest possible philosophical implications.

I

An English sentence often has two verbs—that is, in addition to the usual main verb, there is a modal verb apparently sharing the same subject and embodying some comment on the speaker's part on the validity of the rest of the sentence. The modal verbs that we shall be concerned with are : *will, may, can, must, ought, should, let, shall, would, might, could*, and, to some extent, *need*. We shall leave out the modal-like uses of *have* (he has to go), *manage* (he managed to go), *be* and *be* combinations (he was to go, he was able to go, he is going to come), and *dare* (he dare not show his face). Explicating the modal is essentially explicating its relation to the validity of the rest of the sentence. From now on, we shall use the term PROPOSITUS to avoid repeating the awkward phrase 'the rest of the sentence': the PROPOSITUS is simply the event, state, process, action etc. referred to by the

main verb together with its accompaniments (subject, object, complements, manner adverbials, and the like). To keep matters simple we shall keep the tense variable constant—in all the examples that follow PAST time reference is excluded, it is either PRESENT or FUTURE. And, until towards the end, we shall stick to the affirmative polarity. NOT introduces a complication in that we have to decide whether it belongs to the PROPOSITUS or to the MODAL in the sentence. Consider :

(1) You must speak frankly.

(2) You mustn't speak frankly.

Here (2) cannot be paraphrased as—

(2a) It is not the case that you must speak frankly.

Rather, (2) should be paraphrased as—

(2b) You must abstain from speaking frankly.

If what one wants to say is (2a) and not (2b), one has to resort to (3)—

(3) You needn't speak frankly.

Need is, as it were, a variant of *must* appropriate when *not* negates the MODAL. When the PROPOSITUS is negated, *mustn't* is quite appropriate. So—

(i) MODAL (PROPOSITUS) (example 1)

(ii) MODAL (NOT-PROPOSITUS) (example 2)

(iii) NOT-MODAL (PROPOSITUS) (example 3)

Coming now to the MODALS proper, we have to establish certain distinctions to begin with. First, a distinction between EPISTEMIC modals and MANDATORY modals. Compare (1) with (4)—

(1) You must speak frankly.

(4) You must be crazy to speak so frankly.

And compare the pair (1)–(4) with the pair (5)–(6) :

(5) He must be careful.

(6) He must be careless.

Clearly, (5) and (6) can be said together without any contradiction, as in—

(7) He must be careless. It's a pity; for he must be careful you know.

The simplest way of accounting for these examples is to say that *must* is open to an EPISTEMIC interpretation where grounds for believing the PROPOSITUS are being evaluated and a MANDATORY interpretation where grounds for implementing the PROPOSITUS are being evaluated. (1), (5), and (5) as a part of (7) favour the MANDATORY interpretation; (4), (6), and (6) as a part of (7) favour the EPISTEMIC interpretation.

The two groups of examples also illustrate another distinction—the one between INTRANSITIVE modals and TRANSITIVE modals. With the former, the PROPOSITUS is the subject of the modal. With the latter, the MODAL and the PROPOSITUS genuinely share a common subject. Thus, (4) and (6) in their normal interpretation show an INTRANSITIVE *must*, (6a) being a suitable paraphrase of (6)—

(6a) That he is careless must be the case.

So, in (6) *he* is only apparently or superficially the subject of *must*, somewhat as in (8). (Compare (8) with (8a).)

(8) What happened? He happened to visit my place.

(8a) It happened that he visited my place.

So *must* of (6) and (6a) is a one-place predicate with the PROPOSITUS as its argument. The *must* of (5) is on the other hand transitive—a two-place predicate.

(iv) *must* (PROP) (examples 6, 6a)

(v) *must* (he, PROP) (example 5)

As we shall see later on EPISTEMIC modals can be transitive too and MANDATORY modals can be intransitive too.

The third distinction concerns the amount of value that we place on the grounds being offered for believing (or implementing, as the case may be) the PROPOSITUS. The grounds may be made explicit as in the marked portion of (4) or (9) or implicit as in (6).

(4) You must be crazy *to speak so frankly*.

(9) They must be newly-weds : *they look so happy*.

Now, in these two examples the grounds are so strong to the speaker that in his eyes they BIND one to believe the PROPOSITUS. But suppose the grounds are not strong enough to effect such a BIND ? (As in 9a.)

(9a) They needn't be newly-weds : *they aren't ecstatic enough*.

NOT-must (PROP)

At the same time there is no ground for a negated PROP. (As in 9b.)

(9b) They mustn't be newly-weds : *they look unhappy*.
must (NOT-PROP)

So that one may want to retort to (9b) with (9c).

(9c) Well, they can be newly-weds : *they look happy enough*. So, while there is no BIND to believe their recent marriage there is a RELEASE to that effect. While *must* is a BIND modal, *can* is a RELEASE modal. The modal negation of (9c) will bring us back to (9b)—so (9d) is a more idiomatic version of (9b).

(9d) They can't be newly-weds : *they look so unhappy*.

NOT-can (PROP)

Armed with these three distinctions, we can look at some subsystems of English modals :

(vi) epistemic/mandatory

(vii) intransitive/transitive

(viii) bind/release

(Note their interrelationship :

BIND (PROP) = NOT-RELEASE (NOT-PROP)

as seen in the equivalence of (9) and (9e).)

(9e) They can't not be newly-weds : *they look so happy.*
(colloquial).

Where there is a WILL there is a MAY

Consider examples (10)-(13) :

(10) Mary will leave if John comes.

(11) Mary may leave if John comes.

(12) Mary would leave if John came.

(13) Mary might leave if John came.

Let us apply our three pairs (vi)-(viii). These are all clearly EPISTEMIC—we are being asked to believe in the PROPOSITUS—namely, Mary's departure on John's arrival. Again, these are all INTRANSITIVE; they are readily paraphrased as—

(10a) It will be the case that Mary leaves if John comes.

(11a) It may be the case that Mary leaves if John comes.

(Compare the idiomatic use of ' maybe ' for ' perhaps ').

(12a) It would be the case that Mary leave if John came.

(13a) It might be the case that Mary leave if John came.

Finally, while (10) and (12) have the force of a BIND, the other two (11) and (13) merely connote RELEASE. Thus, there is nothing odd about (10b), (11b), (11c).

(10b) Mary will leave if John comes; and I believe it.

(11b) Mary may leave if John comes; but I don't believe it.

(11c) Mary may leave if John comes; or she may not.

(*may not* here is *may* (NOT-PROP))

On the other hand (10c), (10d), (11d) will be distinctly odd :

(10c) Mary will leave if John comes; but I don't believe it.

(10d) Mary will leave if John comes; or she will not.

(11d) Mary may leave if John comes; and I believe it.

While (11c) can mean that both PROP and NOT-PROP are equally probable, (10d) is defensible only if we give it a purely analytic interpretation as an application of the principle of the excluded middle. (11d), again, is defensible only if 'it' is interpreted not as 'Mary's leaving if John comes' but as 'Mary may leave if John comes'.

Certain clarifications are needed at this point. First, the presence of an *if*-clause seen in (10)–(13) is not an essential feature. The *if*-clause may be left suppressed. (Compare the suppression of a *since*-clause in (6) and its presence, in various guises, in (4), (9), (9a–d).) Consider—

(14) He will/may/would/might know the answer.

(Possibly with an implied—'if you ask/asked him'.)

(15) (An early morning doorbell ring.) That will/may/would/might be the milkman.

The versions with *will* under (14) and (15) also serve to bring out a second fact. While *will* has been saddled with the duty of providing a future tense for English by traditional grammarians brought up on Latin and hence missing it in English, *will* actually ranges over present as well as future. (It is obvious that *would*, *might*, and 'if John came' are bereft here of their PAST time force.)

Thirdly, the condition introduced by *if* (or the concession introduced by *though*) may be counterfactive as in (12), (13) with a strong suggestion that John's arrival is never going to come about or it may be nonfactive as in (10), (11) where *if* can easily be replaced by *if and when*.

The second subsystem to be considered now matches this except that the modals there are TRANSITIVE.

Dispositions and capacities : One would if one could

I have already hinted that EPISTEMIC modals can be TRANSITIVE. Consider (16)–(19) which match (10)–(13).

(16) Mary will say yes if John proposes to her.

(17) Mary can say yes if John proposes to her.

(18) Mary would say yes if John proposed to her.

(19) Mary could say yes if John proposed to her.

The comparison of the two sets should serve to bring out the two meanings of *will*.

(ix) *will* (PROP) (*will*–1 in example 10)

(x) *will* (Mary, PROP) (*will*–2 in example 16)

Consider the following which illustrate both the subsystems together.

(20) If Mary *will*–2 not marry John, she *will*–1 not.

(21) If what beggars *will*–2 beggars can, then beggars may—
nay, beggars *will*–1.

While (10)–(13) BIND (or RELEASE, as the case may be) one to believe PROP, (16)–(19) BIND (*will*–2) or RELEASE (*can* = *be able to*) one to believe of someone that PROP is the case. Thus (22) and (22a) are paraphrases of each other under *will*–1 but not under *will*–2.

(22) Mary will not marry John.

(22a) John will not be married to Mary.

The contrast between *will*–2 (willingness, disposition) and *can* (ability, capacity) is of course a fundamental one that runs through the world of man and certainly through the world of cognition. What one *will*–2 say is what one thinks or believes. What one *can* say is what one knows.

(23) What one can't say one mustn't speak.

(Here *must* is MANDATORY modal as in (2).)

This will be one possible paraphrase of the Wittgenstein dictum (*Tractatus logico-philosophicus* 7.1).

Is ought a must ? And can a may ?

We have already seen how *must* is either intransitive and epistemic or transitive and mandatory. Both are, however, BIND modals. The *can* of (9c) is the epistemic modal of RELEASE. We are actually dealing here with the third and the fourth subsystems. Let us take up the epistemic subsystem first. (We will suppress the grounds for brevity's sake.)

(9) They must be newly-weds.

(24) They ought to be/should be newly-weds.

(9c) They can be newly-weds.

Two questions immediately arise. What is the difference between the *will-1/may* pair of subsystem 1 and the present *must/can* pair of subsystem 3 ? (This *can* is of course different from the 'be-able-to' *can* in the *will-2/can* pair of subsystem 2.) Both pairs are epistemic and intransitive. Compare (25) with (26), and (27) with (28).

(25) That will be four shillings.

(26) That must be three shillings.

(27) He may be annoying sometimes.

(28) He can be annoying sometimes.

The *must-can* pair is certainly more contentious in tone than the *may-will* pair. While the shopkeeper will use (25) (with an implied 'as a matter of course'), the customer must use (26) ! The grounds of validity being offered in each case are different in character—knowledge about relevant circumstances (KRC) in

one case and belief about relevant circumstances (BRC) in the other case. The schemata for (25)–(28) are respectively:—

(xi) *will* (PROP) = BIND (BRC, anyone, BELIEVE-PROP)

(xii) *must* (PROP) = BIND (KRC, anyone, BELIEVE-PROP)

(xiii) *may* (PROP) = RELEASE (BRC, anyone, BELIEVE-PROP)

(xiv) *can* (Prop) = RELEASE (KRC, anyone, BELIEVE-PROP)

BRC is associated with *if*-clauses, KRC with *since*-clauses. (27) may be continued appropriately with *as far as I know*; while (28) may be continued appropriately with *such is his nature* or *he is unable to help it*.

The second question concerns the place of *ought* and *should* in the *must*–*can* system, for it seems clear that they belong there and call for KRC. Both, one may add, are BIND rather than RELEASE modals. But there is a crucial difference between *must* and *ought/should*—one who concedes (9) will readily concede (24), but one who concedes (24) needn't concede (9) at all. So (24) presents a weaker version of (9), it is what one believes but doesn't know for sure. Let us symbolize this added element found in *ought/should* but not in *must* as THINK. Going back to *may* and *can*, one may point out an additional difference between the two—*may* has a THINK element in it but *can* hasn't, which means that conceding (27) implies conceding (28) but not the other way round.

The three EPISTEMIC modal verb systems can now be calibrated with each other and with the EPISTEMIC modal adjectives which philosophers feel more at home with.

(xv) EPISTEMIC (i.e. BELIEVE-PROP) modal verbs and adjectives

	Subsystem 1 Intransitive (BRC, any- one, BELIEVE- VE-PROP)	Subsystem 2 Transitive (BRC, any- one, Agent, BELIEVE- IMPLEMENT- PROP)	Subsystem 3 Intransitive (KRC, any- one, BELIEVE- PROP)	Modal adjectives
(A) BIND	<i>will-1</i>	<i>will-2</i>	<i>must</i>	<i>certain</i>
(B) THINK (BIND)	<i>ought/should</i>	<i>almost certain, more than probable</i>
(C) THINK (RELEASE)	<i>may</i>	<i>probable, more than possible</i>
(D) RELEASE	..	<i>can</i>	<i>can</i>	<i>possible</i>

Note: Gaps in the system are indicated by .. In respect of less careful usage, however, .. may be interpreted as ditto signs. Thus, *ought/should* are used not only for B-3 but also for C-3; similar observations hold good for *will-1*, *may* and *will-2*.

The MANDATORY modal systems in English are not entirely parallel. They merge C and D.

- (xvi) (A) *must* : *essential, more than desirable*
 (B) *ought/should* : *desirable/advisable, more than permissible*
 (C-D) *may/can* : *permitted/entitled*

The appropriate schemata will be—

- (xvii) *must* (Agent, PROP) = BIND (KRC, Agent, IMPLEMENT-PROP)
 (xviii) *ought/should* (Agent, PROP) = THINK (BIND (KRC, Agent, IMPLEMENT-PROP))
 (xix) *may/can* (Agent, PROP) = RELEASE (KRC, Agent, IMPLEMENT-PROP)

The Known Relevant Circumstances may be the various demands on the Agent (of law, custom, fashion, morality, common sense, and the like) or the interests of the agent. (When *should* has this latter sense, it can be paraphrased by *had better* .) The source of the demands made on the Agent may be someone other than the Agent—very often the Speaker who wants to declare them (*you must, he may*) or the Addressee who is being asked about them (*may I ? , should he ?*) or some third party (*I must, must you ? , he can*). Note that KRC of (xvii)–(xix) is *known* relevant circumstances in subsystem 4 but *knowledge of* relevant circumstances in subsystem 3.

It is significant that *must, ought, should, can, and may* have each an EPISTEMIC (see (xv)) and a MANDATORY (see (xvi)) interpretation. (Originally they were all transitive and, with the exception of the last two, mandatory.) Ordinary language frequently paraphrases the EPISTEMIC in terms of the MANDATORY.

- (29) This must be true = I must say that this is true.
- (30) This ought to/should be true = I ought to/should say that this is true.
- (31) This may/can be true = I may/can/dare say that this is true.

It also permits mutual embedding as in—

- (32) I must say that this can be true.
(Here the contentious EPISTEMIC *can* is embedded in the PROP of the MANDATORY *must* .)
- (33) I can say that this may be true.
- (34) It is possible/is probable/may be the case that you must speak frankly. (Here the MANDATORY *must* is embedded in the PROP of EPISTEMIC modals.)
- (35) He may certainly/probably/possibly be careless.
(EPISTEMIC inside EPISTEMIC)

When wishes are the horses, performatives will ride them

When the Known Relevant Circumstances take the shape of the Author of the Speech Act, the Speech Act takes on a performative force. This is seen in four minor subsystems—one EPISTEMIC and three MANDATORY.

The fifth subsystem has *let* as the only member.

(36) Let John come, and Mary will/may leave.

(This is a paraphrase of (10), (11) respectively.)

(37) Let A be equal to B, and B will be equal to A.

(38) (Let yourself/anyone) scratch a Russian, and you/he will find a Tartar. (One could retort :

(Let yourself/anyone) scratch a Russian, but you/he won't find a Tartar.)

(Here the first two words, are usually left understood.)

The following schema covers the *let*-sentences :

(xx) *let* (PROP) = BIND (SPEAKER, anyone, SUPPOSE-PROP)

(If BIND is replaced by RELEASE the condition with *let...and* is converted into the concession with *let...but.*)

The sixth subsystem has *may* and *let*.

(39) (May) God bless/damn you !

(40) (Let) Devil take the hindmost !

The respective schemata are—

(xxi) *may* (PROP) = BIND (SPEAKER, BRC, IMPLEMENT-PROP)

(xxii) *let* (PROP) = RELEASE (SPEAKER, BRC, IMPLEMENT-PROP)

Let can also be a BIND modal as in (41), a line from Rabindranath Thakur.

(41) Into that Heaven, O Lord, let my country awake !

For the Speaker to invoke the world (Believed Relevant Circumstances, to be precise) to implement the PROPOSITUS is certainly a brave performative act that harmonizes poorly with the modern world (whence the archaism of (39)).

The seventh subsystem has *shall* as the only member.

(42) They (shall) pay now/later.

(43) Either they (shall) go or I (shall) go.

The appropriate schema will be—

(xxiii) *shall* (PROP) = BIND (SPEAKER, SPEAKER, IMPLEMENT-PROP)

The Speaker is here, so to say, staking his honour on that the PROPOSITUS be carried out. There is an epistemic suggestion also—‘ what I undertake to implement *will* come about ’.

All the three subsystems above are intransitive. The eighth one is transitive. If the source of the demands on the Agent is someone other than the Agent, the appropriate modal is *shall* (*I shall, shall I ? , thou shalt not, they shall*). If it is the Speaker, the appropriate modal is *will*. If it is someone other than the Agent, the appropriate modal is *let*. The distinction between BIND and RELEASE is somewhat blurred in this subsystem. Some of the permissible types are illustrated below.

(44) Let me join you, shall I ?

(45) Let us have our own way, will you ?

(46) Let's/Let me and you draw lots, shall we ?

(47) I will/shall write to you later.

(48) (You will) leave this place, will you ?

(49) (You will) give us a chance, won't you (please) ?

(50) (You will) leave before it is too late.

- (51) (You will) pay later if you like/please.
- (52) You shall report to me tomorrow.
- (53) (You will) get well soon, won't you ?
- (54) He will/shall report to me tomorrow. (Said by the boss)
- (55) Let him pay later if he likes. (Said by the boss)
- (56) Let him pay later if he likes. (Someone reporting the boss)
- (57) He shall report to our boss tomorrow.

Out of these, all except the last two have a performative force—in (44), (45) the Speaker seeks direction from the addressee; in (46) he makes a proposal to the Addressee which may amount to a direction; in (47) he makes a promise (in this case, to the Addressee); in (48) to (52) he seeks to direct the Addressee respectively by way of command, request, advice, permission, and demand; the advice in (50) can be mock-advice—that is, a disguised threat; in (53) the Speaker makes a mock-request which really conveys a wish; in (54) he issues a command or a demand; in (55) he conveys a permission, request, or advice. The last two, (56) and (57), are of course only relays of performative acts—the quotation marks are left understood, as it were. Note that (47) lacks the solemn urgency of (43); and that (53) lacks the solemn urgency of (39)—for obvious reasons.

The mandatory modal subsystem of *must*, *ought/should*, and *may/can* described earlier is mildly performative in that these convey the Speaker's endorsement of the BIND or the RELEASE over and above his report of it. Compare (58) which conveys endorsement with (59) which does not.

- (58) The girls may not wear miniskirts in this school (which is at it should be).

(The parenthetical addition is a MANDATORY embedding the earlier MANDATORY !)

(59) The girls are not permitted to wear minishirts in this school. (This may be continued with : ' which is idiotic ' ;
(58) cannot be so continued.)

(60) You have to speak frankly at times. (This lacks the appeal of (1) to the Addressee.)

This completes in broad outline the description and analysis of the English modal verb system.

II

You may have observed that I have so far jealously tried to keep all my eggs in the basket of linguistics. Not only will a good deal of this stuff be familiar to linguists—familiar insights contributed by generations of linguists from Jespersen the Dane to Antinucci and Parisi the young Italian students. But whatever innovations, renovations, and departures I have made and whatever insights I have taken over from logicians (for example, the interlocking logic of *require/bind* and *permit/release*) and philosophers (for example, the distinction between *alethic/epistemic* and *deontic/mandatory* and the notion of the performative aspect of utterances), I have done so without ceasing to look for the sort of arguments that a linguist will look for. Though I have naturally refrained from presenting such arguments at length in this study, the flavour of such arguments may have become apparent by now. A linguist will look for formal correlates of distinctions of use or meaning : the mandatory *must* never loses its accent; epistemic *may not* is NOT-PROP and mandatory *may not* is NOT-MODAL; *will-1* is passive-transparent while *will-2* isn't (examples 22, 22a). Of course, these formal correlates may be fairly subtle sometimes—for example, the arguments for establishing the deeper intransitivity of some modals.

It may be noted in passing that information about earlier stages of language (say, about Old English and about the buried

relationship between *may/might* and *might/mighty*) or about cognate languages (say, about modals in German) is, strictly speaking, unnecessary and inconclusive for analytic linguistics, though there is no denying its suggestive value. This self-denying ordinance which linguists have imposed on themselves lately need not upset one if it is realized that information of this kind is not available either to the child learning his very first language—become as little children if ye will enter the heaven of linguistic analysis.

There is another kind of empirical evidence that the linguist uses—namely, observations on the mode of use (e.g. the solemn urgency of *may* in (39) and its absence in the comparable use of the Imperative in (53); the sort of continuations that are admissible and the sort that aren't). This kind of evidence could also include logical judgements of compatibility, incompatibility, and the like offered by language users (e.g. our discussion about the *must/ought* contrast). Some of the constraints can be traced to the logic of communication as such (e.g. one has no occasion to put a question about one's own wishes or to inform the addressee of the latter's wishes).

Now whether it is the behaviour of forms within the linguistic system or the behaviour of speakers and addressee within a linguistic transaction that a linguist is examining, in either case he is playing the anthropologist. If by the term 'category' we understand how members of a society sharing a culture customarily attribute similar characteristics to a class of things, respond similarly to these, and discriminate them from other categories, then it is the linguist's job to identify linguistic categories by observing linguistic transactions. His interest is not in the linguistic transactions as such; his interest in them is for sake of the shared linguistic intuitions or categories of the users of that language that are revealed through them.

Finally, while the starting point of a linguist's investigation is quite often an intuited family resemblance, the object of his investigation can more properly be called family relationships. He has no interest in a single sense of a single term as such—say, the ability sense of *can* or the mandatory sense of *ought*—but rather in the whole fabric of relationships from which the term derives its whole *raison d'être*. Thus, rather than look at the moral *ought* in splendid isolation, a linguist relates this particular use first to the whole mandatory range of *ought* as seen in—

(61) You ought to try these biscuits : they're delicious.

(62) The red ought to go here and the blue there.

(63) We ought to bump^o off the old man one of these days.

then to the other members of the subsystem *must, should, can, may*; then to the other epistemic use of *ought*; and finally to the matching modal adjectives *desirable* and *more than permissible*. In working out these systems, a linguist is always ready to come across untidy gaps and accretions, fossil items, blurred edges and the like. Being an anthropologist, he will almost be disappointed if he doesn't !

After his analytic job is over, a linguist may want not only to analyze the next language in view but also, within the framework of his discipline, to compare languages as wholes or in respect of some chosen detail—say, modal components of the verbal system. Such comparisons may be either historical—that is, undertaken to investigate relationships of descent and influence—or correlative—that is, undertaken to find what trait in one language translates (in the broadest sense of that term) what trait in another. For example, he will point out to the matching ambiguity of (64) in English and (64a) in Marathi.

(64) It ought to rain today : it has been very sultry for some time.

(64a) *āj pāus paḍāvā : phār ukaḍṭa āhe.*

One doesn't know if the ground (sultriness) is being offered as a symptom of the rain in the EPISTEMIC mode or as a justification for desiring rain in the MANDATORY mode.

Philosophically, correlative comparisons are going to be the more interesting of the two in that they are expected to reveal either language universals or deep-seated cleavages between languages.

Having thus let you have a peep into the linguist's kitchen which may be of special interest to conceptual analysts, I shall now proceed to keep my promise to indicate possible philosophical relevance of the foregoing analysis of English modals verbs, which, as modal verb systems in ordinary language go, probably present an unusually perspicuous example of this species. Marathi and French, which I know something of, are probably pretty messy and Hindi is rather sparse on this given point. In selecting English, it is as if a botany teacher happily picked up a flower of unusual "normality" as a classroom specimen.

Everything is grist to the Embedding mill

A negative feature of this system is that we have had no occasion to state any salient constraints on the sort of predicates and arguments that can go into the PROPOSITUS when a modal of a certain type is dominating it. We have already seen that modals can embed other modals rather freely with results that are not always calculated to make a logician happy. We have also seen mutual paraphrase relations (as in (29) to (31)) between Subsystems 3 and 4. The nearest to such a constraint that one can think of is the recommendation that the PROPOSITUS of a transitive modal have an identifiable Agent. The identifiable agent need not be overt.

- (65) With the newer techniques a ten-storey building can be built in as many weeks. (ability *can*)

And, of course, since this is only a recommendation, the Agent need not be there at all, as in (64) or (64a) above in their MANDATORY interpretation. In spite of this lack, (64) is as firmly tied to the desirability *ought* as it is distinct from (66), (67), and (68).

(64) It ought to rain today : it has been very sultry for some time.

(66) May it rain today !

(The continuation in (64) will be incongruous here.)

(67) I wish that it rain today.

(68) I will be happy if it rains today.

Clearly there is a shadow subsystem by the side of the fourth subsystem—both are MANDATORY but while the fourth is transitive, the shadow (let us call it Subsystem 4a) is intransitive. So the schema appropriate to the intransitive MANDATORY *ought* as seen in the desirability interpretation of (64) is—

(xxiv) *ought* (PROP) = THINK (BIND (KRC, HAPPEN-PROP))

Note that BIND, RELEASE in Subsystem 4a will be not three-place but two-place predicates and that IMPLEMENT (attempt and accomplish HAPPEN) will be replaced by HAPPEN. Another example of this *ought* is (69), which is a paraphrase of (70).

(69) Your parents ought to be helped.

(70) Someone ought to help your parents.

(71) will be an appropriate paraphrase of (69) and (70) :

(71) It is desirable that your parents be helped.

On the other hand, (72) will paraphrase as (73)—

(72) He ought to help your parents.

(73) It is incumbent on him that he help your parents.

Going back to (69) and (70), consider (74)—

(74) Your parents deserve to be helped.

(74) implies (69)–(71), but not the other way round. The reason probably is that (74) says all that (69)–(71) have to say (though in a different format) and something more; (74) can be paraphrased as—

(75) Your parents being what they are, they ought to be helped.

Note, incidentally that while (72a) will be all right. (72b) will be distinctly odd.

(72a) Your parents deserve to be helped by him.

(72b) He deserves to help your parents.

In short, Subsystem 4 has a version Subsystem 4a in which even the constraint calling for an identifiable Agent is removed. If one considers how philosophers tend to draw a sharp line between truth-claims and judgements of rightness, goodness, beauty, expediency, legality, and the like this casualness about the distinction between EPISTEMIC and MANDATORY modals and the freedom to choose any PROPOSITUS is surprising if not scandalous. Or maybe, turning the tables around, the philosopher's insistence on the sharp line between Subsystems 1–3 and Subsystems 4, 4a is surprising. Even more surprising is his insistence on separating, say, (1), (2), (5), (69), (74)—all tame 'moral' judgements from, say, (64 in MANDATORY version) and the group (61)–(63). What separates 'moral' judgements from other judgements—including 'immoral' judgements like (63) and judgements of truth—is, it should be apparent by now, not their 'logical grammar' but something else.

Actually, subsystems 4 and 4a supply philosophers with a set of versatile tools that they have not fully exploited. Let us go back to—

(23) What one can't say one mustn't speak.

Compare this with—

(23a) Wovon man nicht sprechen kann, darüber muss man schweigen.

(23b) Whereof one cannot speak, thereof one must be silent.
(The accepted translation of 23a.)

What is the status of this injunction of silence ? Is it a moral injunction in the narrow sense ? Or an injunction of some other order ? Consider again the following :

(76) This sight is beautiful.

(76a) How beautiful this sight is !

(76b) I will say/I think that this sight is beautiful.

(76c) One can/ought to/must say that this sight is beautiful.

An aesthetic judgement is exemplified by (76c) and the corresponding interpretation of (76) but not by (76a), (76b), and the corresponding interpretations of (76). The following two are aesthetic judgements of a somewhat different kind—

(77) This sight deserves to be called beautiful.

(77a) This sight being what it is, one ought to say that it is beautiful.

(62) The red ought to go here and the blue there.

Moods and Tenses

English sentences with modal verbs are sometimes claimed to be tense-neutral. This is not quite true. English has only two tenses—past and nonpast. There is no future tense in English. In a modal sentence, past tense (like negation) can be inserted at two places—in the MODAL and in the PROPOSITUS. This is broadly true of the major Subsystems (i.e. 1, 2, 3, 4, 4a) : the actual facts of usage are rather messy.

(78) He will/would go/have gone for a walk.

(79) He won't/wouldn't confess his crime.

(79a) He can't/couldn't confess his crime.

(80) He can/could be/have been annoying sometimes.

(81) He doesn't/didn't need to go/have gone there.

(82) I think/thought you ought to help/have helped your parents.

The performative force of the four minor Subsystems (i.e. 5, 6, 7, 8) precludes the use of past with the modal; the PROPOSITUS too is always nonpast.

While some languages undoubtedly have a future tense in their formal system, can we say the same thing about their semantic system ? Does the modal handling of the future in English typify a language universal or does it typify a major cleavage among human languages ? Whatever answer linguists offer to this question is going to be of interest to philosophers. Of course the modal substitute for future need not be *will*; it can be *go*; the substitute need not be even modal. In French *je donnerai* is literally "I have to give" (i.e. "I will give").

There is no denying of course that English modals have tense connotations. Consider—

(83) John may be obnoxious/tall.

(84) John can be obnoxious.

(' tall ' will be odd here)

(85) Englishmen may be obnoxious.

(' tall ' will be odd here)

(86) Englishmen can be obnoxious/tall.

(87) (You will) remain seated.

(Here the Addressee may or may not be seated at the time of saying.)

- (88) The train may/will be in the station.
(The train may or may not be in the station at the time of saying.)
- (89) The train must/can be in the station.
(The reference is to the certainty/possibility of the train being in the station at the time of saying.)
- (90) (You will) open your mouth/sit down.
(It will be odd to say this to someone whose mouth is already open/who is already seated.)
- (91) The train may/will have left the station.
(This is compatible equally with ' by now ' and with ' by that future time ').
- (92) The train may/will leave the station.
(It will be odd to say this if the train is already out of the station.)

Vulnerability of Modals

Are English modals vulnerable ? More exactly, does English permit the Addressee to confront a Statement containing a Modal with its contradictory by way of disputing it ? And further, is one permitted to refute a Modal Statement ? Presumably, disputability is a weaker demand than refutability.

Let us take disputability first. Or rather let us take the linguistic provision for disputing a statement. Usually this linguistic provision takes the form of negation—but not always. Thus (93) can be disputed not by saying (94) which is unavailable in English (and hence starred) but by (95) which doesn't look like the counterpart of (93) with opposite polarity.

(93) The train didn't leave until the Chief Minister boarded it.

(94) *The train left until the Chief Minister boarded it.

(95) The train left before the Chief Minister boarded it.

Our earlier distinction between MODAL and PROPOSITUS negation is relevant at this point.

The Subsystems may now be surveyed from this point of view. (Symbols : MN modal negation, PN propositus negation, I incompatible and so can justify a 'no, but' retort, I* just enough incompatible to justify *or rather*, I** just enough incompatible to justify *but*, I*** just enough incompatible to justify *but* or *though*, C compatible, A collectively exhaustive.)

(xxv) Subsystem 1

will-1, won't are PN, I

will-1, may not are MN, I, A

may, won't are MN, I, A

may, may not are PN, C, I**

will-1, may are C, I*

won't, may not are C, I*

(This is analogously applicable to *would, might*.)

(xxvi) Subsystem 2

will-2, won't are PN, I

will-2, can't are I***

can, can't are MN, I, A

can, won't are I***

(*will-2* is more common with the negative.)

(xxvii) Subsystem 3

must/ought/should, mustn't/oughtn't/shouldn't are PN, I

must, needn't are MN, I, A

can, can't are MN, I, A.

must/ought/should, can't are PN, I.

can, mustn't/oughtn't/shouldn't are PN, I.

ought/should, needn't are MN, I***, A

can, needn't are PN, I**.

must, ought, should, can are C, I*

(xxviii) Epistemic modal adjectives

certain, uncertain are I, A*more than probable, improbable* are I, A*probable, more than improbable* are I, A*possible, impossible* are I, A

(The other relationships can be worked out. BELIEVE-PROP can be replaced by CONCEIVE-PROP yielding another set of modal adjectives, *inevitable, contingent, barely conceivable, almost inconceivable, conceivable, inconceivable*. This other set may hold the key to the analytic-synthetic problem in philosophy.)

(xxix) Subsystem 4, 4a

must/ought/should, mustn't/oughtn't/shouldn't are PN, I
must, needn't are MN, I, A

may/can, may not/can't are MN, I, A*must/ought/should, may not/can't* are PN, I*may/can, mustn't/oughtn't/shouldn't* are PN, I, A

(The other relationships can be worked out.)

(xxx) Subsystem 5

let, don't let are MN, I, A*let/Imperative, let ... not/don't* are PN, I

(xxxi) Subsystem 6

may/let, may/let ... not are PN, I*let, let ... not* are PN, I*may, let ... not* are I, A

(Note that *let* has two senses : RELEASE and also BIND in Subsystems 5 and 6.)

(xxxii) Subsystem 7

shall, shan't are PN, I

(xxxiii) Subsystem 8

will/Imperative, *won't/don't* are PN, I*let, let ... not* are PN, I*let, don't let* are MN, I*shall, shan't* are PN, I

(The other relationships can be worked out.)

For the epistemic subsystems 1 to 3 English operates with a five-valued scale which perhaps could be symbolized as $+1, 0, -1$ and two intermediate values. For the mandatory subsystems 4 and 4a, a four-valued scale operates with $+1, 0, -1$ and a value intermediate between $+1$ and 0 . Subsystems 5 and 6 operate with a three-valued scale $+1, 0, -1$. Subsystems 7 and 8 operate with a two-valued scale $+1, -1$, or perhaps a three-valued one with an intermediate value.

All this is disgustingly messy no doubt to formal logicians. Also, this seems to render hopes for a logic universal to all ordinary languages rather murky.

How do we fare if we pass on from questions of disputability to those of refutability ?

In Subsystem 1, *will* and *won't* are refutable if the PROPOSITUS has a built-in time-bar or condition; *may* and *may not* are not refutable; *would* and *might* and their negative counterparts raise special problems because of the explicit or implicit counterfactive condition.

In Subsystem 2, *won't* and *can't* are refutable, *will* and *can* are refutable if the PROPOSITUS has a built-in time-bar; incidentally only *can* is provable out of the four. The other four *would, wouldn't, could, couldn't* raise special problems.

In Subsystem 3, *must* and *mustn't/can't* are refutable if the PROPOSITUS has a built in time-bar or some condition; the rest are not refutable.

Question of refutability in Subsystem 4 and 4a are often tied up with similar questions regarding Subsystem 2. Take the familiar dictum—*ought* implies *can*, for example. The dictum can be meaningfully discussed in non-ethical domains also : thus, one can argue that

(76d) One can say one ought to find this sight beautiful only if one can say one can find it beautiful. (*ought* (to find) from Subsystem 4; *can* (find) from Subsystem 2; and of course *can* (say) from Subsystem 4)

Note, incidentally, that while (76d) seems to be a reasonable claim, (76e) doesn't which puts the *can* condition inside the propositus of which *ought* is predicated.

(76e) One ought to find this sight beautiful only if one can find it beautiful.

The relation of mandatory *ought* with the mandatory *must* and *should* on the one hand and with the mandatory *shall* (Subsystem 7) and *will* (Subsystem 8) on the other needs to be investigated in the context of ethics. We have already identified the element of THINK that marks *ought* and *should* off from *must*. However, some ethical theories seem to use *ought* as a disguised *must* or a disguised *shall*. Either the disguise (and the caution implied by THINK) be given up or the ethical *ought* be used with its face value.

One way of showing that *ought* implies *can* is to show that *ought* implies *will*-Imperative. The logic of Imperatives can be presented in some such terms.

(xxxiv) For A say to B ' (You will) do X ' is felicitous if and only if

(a) A believes that B can do X or refrain from doing X
(i.e. that B is a potential Agent for doing X).

(b) A wants that B do X.

(c) A expects that B will do X if the Imperative is addressed to B by A.

(d) A does not expect that B will do X anyway.

The following Imperatives are infelicitous in that they violate one or the other of these felicity conditions. This normally induces the Addressee to look for other interpretations.

(89) Open your mouth. (To someone whose mouth is open; cf. Keep your mouth open.)

(96) See this clearly. (cf. Look at this carefully.)

(97) Be tall. (cf. Be healthy.)

(98) Be funny. (cf. Don't be funny.)

(99) Get well soon. (cf. its interpretation as a disguised wish).

(100) Leave this place and don't leave this place.

(101) Go ahead and ruin your health. (cf. its interpretation as a reproach disguised by irony.)

(102) Go home, will you ?—Where do you think I am going ?

(103) Go home, will you ?—Fat chance !

(104) Go home, will you ?—But I have already decided to go home.

Questions of refutability in Subsystem 2 are connected with similar questions in Subsystem 3—in the context of the philosophy of mind one can discuss, for example, whether *will*-2 (disposition) implies *must* epistemic (need).

The notion of refutability when applied to performatives (as the modals of Subsystems 5 to 8 are) takes on the form of the notion of being liable to be exposed as infelicitous—defelicitizability, if you can tolerate such a monster of a term.

The other side of the coin of disputing and refuting is justifying a disputed claim and successfully defending it. We have dwelt at length on vulnerability the better to throw light on justifying and defending BELIEVE-PROP or IMPLEMENT-PROP or HAPPEN-PROP. Justifications are of course quite different from explanations. We justify our acts including presumably our acts of belief. We explain or account for facts including presumably our acts. Our acts include our speech acts—explicating an expression is part of the explanation for the speech act concerned.

We have sought so far to explicate expressions containing modal verbs. Have we in the process explained why such expressions are used ? If our explications are correct, we have gone a long way towards explaining their use—but not all the way.

III

Concluding Remarks

Some aspects of these explanations, to be sure, are going to belong to historical linguistics—showing the links between present-day English modal verbs and their Old English ancestors, for example—and thus going to be of no great interest to philosophers. But there is no doubt that the remaining, functional aspects of these explanations are going to be of interest to philosophers.

Have I kept my promise to do in the first part linguistics that is philosophically interesting without constituting philosophizing about language ? And have I kept my promise to do in the second part philosophizing that is linguistically grounded without being linguistics plain and simple ? And, further, whether I have observed the rules of the game or not, have I succeeded in saying something that will induce you to do your own digging ?

All that naturally is your privilege to decide.

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SCIENTIFIC METHOD IN GALILEO AND BACON

I

Galileo (1564-1642) and Bacon (1561-1626) were contemporaries, although Galileo outlived Bacon by sixteen years. It is interesting to note that both were also contemporaries with Shakespeare (1564-1616). It is highly improbable, however, as has sometimes been claimed, that Bacon had anything to do with the writing of Shakespeare's plays. Both Galileo and Bacon strongly opposed the authority of Aristotle in Science. Bacon was especially concerned to combat Aristotle's syllogistic and his rules of inductive enquiry; for Galileo, Aristotelian physics was the main enemy. They were certainly aware of each other's work. On a number of occasions Bacon mentions that of Galileo, especially his astronomical discoveries by means of the telescope, which he acclaims, although he shows himself critical of the latter's theory of tides. On the other hand, Galileo criticises Bacon's theory of tides, but does not explicitly name him.

Bacon published his *Novum Organum* in 1620. He had, however, been working on it from 1608 to 1620. Galileo had by then published a number of works, among which were the astronomical discoveries he had made with the telescope. Some parts of the *Great World Systems*, which was not published until 1626, had already been circulated in unpublished form, and it is possible that Bacon may have seen them. A letter written to Bacon in 1619 from his friend Toby Matthew, then in Brussels, tells him that Richard White, from whom Galileo had heard of Bacon's theory of tides, was returning to England from Florence bringing back copies of Galileo's published and unpublished works.

As is the case with most great men, opinions about Bacon and Galileo have varied considerably over the years. From the 19th century onwards, Bacon's reputation has progressively declined,

and it is only in recent years that there has been a revival of interest in his work. On the other hand, Galileo's intellectual stature has constantly increased, and at the fourth centenary of his birth, his reputation stands higher than ever, despite the recent attempt by Koestler in his book *The Sleepwalkers* to devalue Galileo in favour of Kepler.

Both Bacon and Galileo found themselves involved in a judicial process at the close of their lives. One was arraigned before the House of Lords for the taking of bribes, the other before the Inquisition for heresy. The former was a statesman and a lawyer, who was finally disgraced for conniving in the practices of a corrupt government, and who in his spare moments wrote what he could about science and its methods. The latter was a highly original man of science, persecuted by the Church for holding the Copernican view. Throughout his life his work in astronomy and physics was his major preoccupation. Bacon was much more conformist than Galileo in his scientific and religious views. He accepted, for example, Tycho Brahe's geocentric system. This was probably due to its being closer to common sense than the helio-centric system of Copernicus. His deficiency in mathematics may also have played a part here. Nevertheless, just because he was not a specialist in any branch of science, he was able to view science in a much more general perspective than could Galileo.

II

The main aim of this paper will be to examine the respective contributions of Galileo and Bacon to scientific method, a field to which they both contributed, Galileo by his own work in astronomy and physics, and Bacon by attempting to analyse and explain the methods and practice of the working scientist. We shall ask (a) how far do the methods used by Bacon and Galileo resemble each other, (b) in what respects do they differ, and (c) on which of these methods did science finally come to model itself? To

answer these questions we shall have to examine more closely their respective approaches to science, and make some comparison between them.

The life of Galileo need not be described in this article; we merely need to note here that Galileo started his scientific career at Pisa at the age of 25, 31 years before the publication of Bacon's *Novum Organum*. Galileo was one of the great advocates of the experimental method. But unlike Bacon, who only recommended us to observe and experiment, Galileo combined experimentation with the need for making accurate measurements. Thus not only did he observe and experiment, but he also measured and counted. In his three most important works, *The Assayer*, the *Great World Systems* and the *Two New Sciences*, Galileo shows how he was thus able to obtain knowledge of the precise mathematical laws regulating phenomena.

The essentials of Galileo's approach to a problem in science would seem to be as follows. By means of intuition we isolate in a specific phenomenon certain elements, usually of a spatio-temporal character, which we then translate into a quantitative form. We next endeavour to discover some mathematical law or formula which will correlate these elements in a systematic manner. Deductions made from this law must always be true of similar instances of the phenomenon, and this can be verified by experiment. By thus introducing what in effect are ideal mathematical laws to correlate the quantitative features of observed events, Galileo was led to experiments which he could not have thought of otherwise.

A corollary of Galileo's view that the laws of nature require to be stated in a mathematical form, was his belief that nature was a simple orderly system, basically mathematical in character. It was mathematics, and especially geometry, which gave us the key to the understanding of the physical universe. From this characteristic of nature there follows the rigorous necessity of

natural laws, which he believes can be established with absolute certainty. Indeed, he sometimes seems to assume that this method of mathematical demonstration, being grounded, as it were, on the very structure of nature, was largely independent of empirical verification—that it gave us an *a priori* method of establishing the truths of physics. Further, Galileo also believed, as have many scientists including Newton, in the economy of nature; that nature does everything in the simplest manner possible.

On its theoretical side at least, Galileo's approach to science resembled that of Plato rather than Aristotle, since the former regarded the use of mathematics as essential to scientific enquiry. Galileo rejected the Aristotelian view which emphasised the qualitative aspect of phenomena, and which tried to explain the behaviour of things by an appeal to 'essences', rather than searching for quantitative relationships between things. However, the classical writer who probably most influenced the development of Galileo's thought was Archimedes; we know that as a youth he had been impressed by the latter's work. Archimedes had formulated his discoveries in mechanics in the axiomatic form made classical by Euclid. Thus starting from what seemed to be self-evident truths about the lever, he deduced specific theorems. These, he assumed, gave him certain knowledge of any mechanical process to which this principle of the lever could be applied.

It has been said that Galileo, although rejecting Aristotle's essences, nevertheless brought in a form of Platonism by the back door, since he too tended to equate the real with the mathematical. However, unlike Plato he did not believe in an independent world of forms; the only real world for him was that investigated by physics. It was this world which could be treated quantitatively, and from which we could read off the mathematical laws of nature. And since our sensory qualities—colours, sounds, smells and tastes—were unamenable to such treatment; he believed that they were purely subjective in character.

As Galileo assumed that the laws of nature could be established with absolute certainty, his position must be distinguished from that of Newton, who held that at the most they could only be established with a degree of probability. For Newton mathematics was simply a method for the solution of problems posed by sense-experience. He considered geometry, for example, to be merely founded on mathematical practice, in which the art of measurement plays an important part. Geometry did not for him, as with Galileo, necessarily reflect the ultimate structure of nature.

III

Galileo's approach to nature, then, has a strongly rational character, and with this there goes some devaluation of common-sense experience. It is precisely this appeal to reason which commended the heliocentric theory to him. As he points out the advocates of this theory "have preferred that which reason represented to them, to that which sensible appearances represented most manifestly to the contrary.... I cannot find any bounds for my admiration how reason was able in Aristarchus and Copernicus to commit such a rape upon their senses as in spite of them to make herself mistress of their belief"¹.

Galileo had, however, to face up to the criticisms of the Aristotelians, who in their preference for qualitative experience argued that mathematics applied only in the abstract and not in the concrete. This argument Galileo met by pointing out that it would be most curious if the computations of the merchant did not correspond to the gold and silver he received in return for his merchandise—as if they did not he would speedily be out of business. For Galileo, therefore, mathematical conclusions are the same in the concrete as they are in the abstract. Nevertheless, he recognised that in order that these computations may apply precisely to concrete phenomena, a process of abstraction must come in. "Just as the computer who wants his computations

to deal with sugar, silk and wool must discount the boxes, bales and other packings, so the mathematical scientist, when he wants to recognise in the concrete the effects he has proved in the abstract must deduct the material hindrances, and if he is able to do so, I assure you that things are in no less agreement than the arithmetical computation''².

Two things emerge from Galileo's argument : (1) that nature is fundamentally mathematical, which is why demonstrations made in the abstract apply also in the concrete; (2) that we can obtain an insight into these mathematical relations as a result of refining our sensory experiences by a process of abstraction. If we are to understand Galileo here, we need to note, as Mach points out, that " he was already in possession of instinctive experiences prior to his resorting to experiment. Freely falling bodies are followed with more difficulty by the eye the longer and further they have fallen; their impact on the hand receiving them is in like measure sharper; the sound of their striking harder. The velocity accordingly increases with the time elapsed and the space traversed ". In order that these instinctive experiences may be used for scientific purposes they require to be formulated in mathematical terms. This, Mach goes on, " is effected by isolating and emphasising what is deemed of importance, by neglecting what is subsidiary, by *abstracting*, by *idealising* ''³. By this use of mathematical abstraction Galileo was enabled to investigate a phenomenon by specially arranged experiments in which irrelevant conditions were excluded, so that it could be studied in its quantitative relations with other phenomena. For example, when letting balls run down an inclined plane, he was able to vary the degree of inclination of the plane. In this way he verified that there is a constant relationship between the distance fallen through and the time taken.

This method of abstraction and idealisation is, of course, not entirely new. In some ways it was an adaptation of the postulational method of Euclid and Archimedes, but applied rather to

the problem of falling bodies. Examples of this process of idealisation may be seen in medieval science, in the ideal balance with weightless arms, the expression of motion in geometrical terms, the use of epicycles and the other devices of Ptolemaic astronomy. A similar process can be observed in Galileo's search for the mathematical laws underlying such phenomena as the acceleration of heavy bodies, the swing of a pendulum, the trajectory of a cannon-ball and the motions of the planets. In his study of such phenomena, Galileo replaced them by ideally simplified bodies, their motion being described in terms of a series of spatial and temporal measurements.⁴

Eddington has rather humorously described this process of idealisation. He tells us that when we read about an elephant whose mass is two tons sliding down a greasy hillside, for the physicist the elephant fades out of the picture and a mass of two tons takes its place. When we go on and read that the slope of the hill is 60° , the hillside too fades away for him and an angle of 60° takes its place. Similarly, the softly yielding turf is replaced by a coefficient of friction. Thus, Eddington concludes, from the point of view of exact science, "the thing that really did descend the hill can only be described as a bundle of pointer readings".⁵

Galileo's belief that the behaviour of things was entirely the product of their mathematical structure led to his further belief that we can draw valid conclusions from a few experiments, which reach far beyond the immediate situation in which they were performed. He asserts, and this may seem strange to the modern reader, that knowledge of a single fact acquired through knowledge of its causes (i.e. the law or formula of which it is a particular case), enables us to ascertain other facts without the need for further experiment. He illustrates this by means of an example taken from his study of projectiles. Once we know that the path is a parabola, we can demonstrate by pure mathematics without recourse to experiment that the maximum range is 45° . To quote

Galileo's own words, "precisely as in the present case, where by argument alone the Author proves with certainty that the maximum range occurs when the elevation is 45° . He thus demonstrates what perhaps has never been observed in experience, namely, that of other shots those which exceed a full shot of 45° by equal amounts have equal ranges".⁶ From this it will be seen that Galileo undoubtedly believed that we can make genuine physical discoveries by theoretical scientific analyses. Experiment would only seem to be necessary in the case of phenomena into whose rational basis we have no insight, or where we want to convince people who are unconvinced by our rational demonstrations.

IV

Closely allied to this process of the abstraction and simplification of phenomena, is Galileo's use of what might be called ideal or thought experiments. This brings us to a rather peculiar fact about Galileo. Although he is generally recognised as being one of the founders of the experimental method, many of the experiments referred to by Galileo seem only to have been performed mentally or merely stated by him as possibilities. Thus he often brings in mental experiments, or experiments are only described without being performed. Verification by experiment appears at times to be only of secondary importance. Even when he does experiment, he may say, "I made an experiment about it but natural reason had very firmly convinced me in advance that the phenomenon was bound to take place as it actually did".⁷ In the *Great World Systems*, for example, Salviati criticises Simplicius for repeating the statements of others that the stone will not come down at the foot of the mast, without observing if this is really the case. But when Salviati is asked whether he has himself verified that the stone will come down at the foot of the mast, he replies that this is unnecessary, as he can reason out what will happen well enough.⁸ It was not, however, until 1640 that this fact was experimentally verified by Gassendi.⁹

In order to discover a law of nature, Galileo did not seem to have started as Bacon might by first performing a large number of experiments, and then allowing the law inherent in the experimental results to crystallise out, as it were. He rather used experiment to verify a relation that he had deduced mathematically from more or less self-evident suppositions. For example, starting from the fact that the phenomenon of fall is accelerated, Galileo proceeds to define in mathematical terms the general features of this change of motion, and then attempts to verify this resultant law experimentally.¹⁰ Galileo conceived the function of experiment to be a specific one; not the discovery of new hypotheses, but the elimination of false hypotheses and the verification of the true one. If the hypothesis was verified he took it as a necessary fact, if not he tried again until he found one which could be verified. Galileo seems to have thought that science advanced through a series of alternatives, each decided by an appeal to a crucial experiment. The whole purpose of this experimental procedure, then, is to show conclusively by the elimination of all alternatives that a given theory is true.

We must be careful, however, not to over-estimate the part played by formal demonstration or thought experiments in Galileo's work. The tendency to do this is increased by the fact that Galileo's writings are couched in the classical style of formal argument and proof. He also rarely gives details of the experimental procedures he employs. The reader can therefore easily get the impression that he did not bother to test experimentally many of his deductions. Against this must be offset the fact that from an early date Galileo was an assiduous experimenter, constructing his own apparatus and obtaining accurate results. He may therefore probably have tested personally many of the experimental facts he writes about.

Galileo's position as far as method was concerned may have been similar to that of Archimedes, who at one time was thought to have made his discoveries in mechanics purely by mathematical

demonstrations. However, when at the beginning of this century Archimedes' work on *Method* was discovered, this showed that he had actually employed experimental procedures for the solution of mechanical problems. The axiomatic presentation of his results was largely a concession to the conventions of the period which looked with disdain on physical manipulations. Could anything like this have been true of Galileo? Was the formal manner in which he presented his data merely a *façon de parler*, and not the way he actually made his discoveries?¹¹

Summing up the contribution of Galileo to scientific method, it is worth noting that (1) he introduced the hypothetico-deductive method into science; (2) reason and imagination play for him an important part in the elaboration of hypotheses, which are grounded in certain self-evident intuitions about physical nature; (3) since it is assumed that the structure of nature is a mathematical one, starting from these intuitions reason can arrive at the laws of nature, which have an a priori character but whose truth may be checked by experiment; (4) experiment is, as it were, the touchstone by which we select relevant from irrelevant hypotheses and is used for testing rather than discovering hypotheses; (5) mental experiments play a part at least equal in importance to actual experiments. In all this, as we shall see, Galileo's method differs radically from that of Bacon, which tends to relegate the part played by hypothesis and conjecture to the background, substituting for the process of individual discovery a quasi-mechanical method.

V

If we wish to place Francis Bacon, Lord Verulam, in his historical perspective, a few words about his life and times are necessary. His father had been Lord Keeper of the Great Seal under Queen Elizabeth I. At the age of 12 he went to Trinity College, Cambridge. When he left at the age of 15, he proceeded to study law at Gray's Inn and thereafter also spent some time in France. At 24 he became a Member of Parliament, and a year

later published his first philosophical essay. This was followed by a long series of works among which were the *Novum Organum* and the *Advancement of Learning*. He played an important part in public life during the reigns of Queen Elizabeth and James I. Unfortunately, his public career was brought to an abrupt end when he was found guilty of accepting bribes in the course of his duties as Lord Chancellor of England. Nevertheless, in spite of the burden of his official duties, Bacon found time to continue with his writings on science, in which he (a) advocated a new method of scientific enquiry and (b) preached the need for improving the material condition of man.

Opinion as to the value of Bacon's work has been sharply divided. To quote two 19th century British scientists who held opposing views about him. Sir David Brewster, for example, said, "If Bacon had never lived, those who study nature would have found in the writings and works of Galileo, not only the much vaunted principles of the inductive philosophy, but also their practical application to the highest achievements of invention and discovery".¹² On the other hand, there is the mathematician John Playfair's evaluation, "More substitutes might be found for Galileo than for Bacon....but the history of human knowledge points out nobody of whom it can be said that, placed in the situation of Bacon, he would have done what Bacon did; no man whose prophetic genius would have enabled him to delineate a system of science which had not yet begun to exist!"¹³

Both these judgements are certainly exaggerated. Without Galileo and Bacon science might have taken longer to advance, but advance it certainly would have done. As far as Bacon is concerned, there is no doubt that his doctrines influenced the Royal Society's programme of research during its early years. And for many years on the Continent, especially in France, his reputation stood very high. However, in the last century both his work and personal life were subjected to severe criticism, among

others by Macaulay and the chemist Leibig. The former, although recognising Bacon's importance as a philosopher, accused him of being a political opportunist. The latter argued that far from Bacon being the father of the modern experimental method, science had never in fact used the method he advocated, and indeed would not have got started if it had.

There is, of course, some substance in Leibig's criticisms, although he may have expected too much from Bacon. He was certainly not another Galileo. Unlike the latter, he discovered no new facts or established new theories, and he was also an indifferent experimenter. Owing to his lack of knowledge of mathematics, he was unaware of the rapid advances being made in this subject during his life-time. As he had his attention largely fixed on the more qualitative aspects of nature, he failed to see the value of the quantitative approach and the very important part mathematics could play in the solution of scientific problems. This also prevented him from understanding the work of Copernicus, Kepler and Galileo. His unfortunate judgment upon them as men "who thought for no reason that they could invent all possibilities of nature, if only they fitted into their calculations", partly arose from this deficiency. In mitigation of Bacon, it ought to be said that he believed that the approach of these thinkers was somewhat one-sided, since they concentrated on the quantitative aspects of nature, and he thought they ought to relate their knowledge to a wider context.¹⁴

Bacon was, of course, much more of a philosopher of science than a practising scientist. Among other things, he tried to make clear the logical process which is carried out largely intuitively when a scientist is engaged in making a discovery, and he noted the very important part played by analogy here. The method he recommended science to use—the so-called inductive method—was taken over later by J. S. Mill. According to this method we need first to gather facts, and then after they have been suitably

arranged, draw generalisations, our minds being unprejudiced by prior anticipations. This approach has been severely criticised from Leibig's day to the present,¹⁵ on the ground that scientists never actually produce theories in this way. It is argued that before we can hope to deal adequately with any problem, we must first have some preliminary hypothesis in terms of which this problem may be studied. The only adequate method, therefore, to be used in science is the hypothetico-deductive one put forward by Galileo.

VI

Although Bacon's reputation as a methodologist of science has become a little tarnished over the years, there is another aspect of his work which is nowadays receiving more and more attention.¹⁶ Bacon, among other things, emphasised the need for team-work in science, and also the need for science to be organised for some social purpose. Bacon's general philosophy had a very practical aim about it. He was immensely interested in technological progress. Macaulay, who was critical of Bacon the politician and courtier, was highly appreciative of this aspect of Bacon's work. According to him, Bacon's philosophy was distinguished from that of his predecessors by its emphasis on utility and progress. The ancient philosophers did not, he says, neglect natural science, but they did not cultivate it for the purpose of increasing the power and ameliorating the condition of man. "The aim of the Platonic philosophy was to exalt man into a god. The aim of the Baconian philosophy was to provide man with what he requires while he continues to be a man. The aim of the Platonic philosophy was to raise us far above vulgar wants. The aim of the Baconian philosophy was to supply our vulgar wants".¹⁷

Bacon, then, wished to use science primarily to improve the material conditions of the life of man. He was therefore not specially concerned with solving particular technical problems for their own sake, as it were, as was the case with some of his great

contemporaries. Bacon was impressed by the effects produced on the culture of his day by a few inventions, particularly printing, gunpowder and the magnet. "For these", he says, "have changed the whole face and state of things throughout the world; the first in literature, the second in warfare, the third in navigation; whence have followed innumerable changes; insomuch that no empire, no sect, no star seems to have exerted greater power and influence in human affairs than these mechanical inventions".¹⁸ Bacon emphasised the need for organised co-operative research in science, as opposed to the individual research which had been the rule up till then. His description of the duties of the workers in Solomon's House, the scientific utopia described by him in his *New Atlantis*, where the scientific investigations are carried out by a group of research workers graded hierarchically in accordance with the tasks they perform, certainly anticipates modern teamwork in science. Bacon also did not restrict the use of the scientific method to natural science; he wished to apply it to a variety of disciplines, which included law, politics and even theology.

In the 17th century in England and later in France, the Baconian method became synonymous with the study of nature by observation and experiment. It should be noted, however, that Bacon used the word experiment in a wider sense than we use it today. He used it to cover every purposive interference with nature. Thus not only did it cover strictly scientific procedures, but also the arts and crafts associated with industry and agriculture. The foundation of the Royal Society owed a great deal to the influence of Bacon's writings, and its early members were certainly stimulated by some of his ideas. In common with him, they avoided hasty generalisation, they rejected authority, and they emphasised the need for collecting natural histories, i.e. for making a complete inventory of the data relevant to any specific subject-matter. However, they had a much better understanding of mathematics, and they also employed experiment to better advan-

tage. As might be expected from their mathematical interests, the method they subsequently came to use in their enquiries was largely that of Galileo. Although curiously enough it became identified with that of Bacon, both within and outside the Royal Society.

As we have seen in Galileo's method,¹⁹ intuition and imagination play a key role in the formulation of the law under which the empirically determined series of measurements are subsumed. On such a view, scientific discovery is akin to artistic creation, and different scientists have given very different accounts of how they actually made their discoveries. For example, in reading how Kepler came to discover that the orbit of Mars was an ellipse, we get the impression that the solution came to him in something like a moment of mystical illumination.

Bacon's approach is a very different one. He is looking for a method which will make it possible for all men to make discoveries in the same way as the great innovators of science have done. He believes that when the faculties of men are provided with an adequate intellectual instrument, it will become as easy for the weakest of human intelligences to obtain real knowledge as the acutest minds, just as it is for the most unskilled hand to trace true circle with a compass. In this way the differences in intelligence among human beings will become levelled out. The discovery of laws in nature would then be transferred from the work of individual intuition and imagination to a definite conscious procedure in which every step would be clearly stated. This procedure, he believes, might to some extent be mechanised. As he puts it, "the mind itself be from the outset not left to take its own course, but guided at every step, and the business be done as if by machinery".²⁰

The logical development of such an approach would be a machine capable of discovering the laws governing natural phenomena. Though we are still a very long way off from such a device,

nevertheless in the ordering of scientific data by means of statistical procedures, etc., we have introduced powerful auxilliary aids for facilitating the process of scientific discovery. Further, today computing machines are being programmed to take over a good number of repetitive tasks in idustry and commerce, and this process will no doubt be accelerated. We have also our programme to enable computers to play chess and even, it is claimed, to compose music and write poetry of a sort. If this is really the case, mechanisation would seem to be making inroads into what at one time was taken to be the porper province of thought and imagination. If an inductive machine could be developed it might, Crowther believes, take over the business of discovery and research. In this way, he goes on, we may be able to convert "the discovery of new facts and theories from a process of individual inspiration and craftsmanship into one of mass-production of discoveries by machines, along industrial lines".²¹ What Crowther does overlook is, that even if this Wellsian nightmare became true, it still might be more economical to employ teams of human scientists co-operating together in the manner outlined by Bacon.

The divergence between the Baconian and the Galilean methods, as we have already noted, shows itself in present day controversies in the philosophy of science as to whether science makes use of the inductive or hypothetico-deductive method in its investigations. Though Bacon was critical of the use of hypothesis in science, we must not forget that so was Newton. His remark that "hypotheses have no place in experimental philosophy" is well known. It has, of course, been frequently argued that Newton nevertheless did use and was indeed the chief exponent of the hypothetico-deductive method. Even if this was the case, it is unlikely that Newton arrived at his hypotheses purely intuitively, as Galileo might have done. Unlike Galileo, he did not regard the laws of nature as *a priori*. His knowledge of them was largely obtained from the experiments he actually performed. As he himself says, "I began the foregoing experiments to investigate

the resistances of fluids, before I was acquainted with the theory laid down in the propositions immediately preceding".²² Of course this does not mean that Bacon or Newton did not make use of some kind of hypothesis in their work. They both believed in the importance of experiment, and we cannot have experiment without some sort of guidance as regards the direction it is to proceed.

Further, it is argued that Bacon's statement that his method would equalise men's ability to attain truth is plainly false, and will remain so as long as individual differences exist. Whewell, for example, believed that an art of discovery was not possible, and that we can give no rules for the pursuit of truth which should be uniformly applicable. It is just here, it is argued, that rules and methods are of no avail and where the individual insight of the experimenter is all-important. It is he who decides which rules and methods to employ. Nevertheless, Bacon did recognise that, other things being equal, the growth of science depended on superior minds. In his Solomon's House, which formed the model for the Royal Society, he allows a place for a few men of high distinction to carry out the co-ordination of effort occasioned by the scientific division of labour.

Another major difference between Bacon and Galileo is the stress Bacon puts on intellectual co-operation or team-work in science. Although Bacon's suggestions as to the need for the division of labour in scientific research and the specialisation it involves, may have seemed somewhat odd in the early 17th century yet there is little doubt that in recent years systematically planned research has proved to be extremely rewarding. New discoveries of vital importance have been made as a result of scientific team-work. Science has also been applied to industry. Good examples of this are to be found in the chemical and electronic industries, in which the individual discoveries of the chemist and physicist have been put to an important industrial use. In these

fields Bacon's dream that science will become harnessed to industry for the improvement of the condition of man has some chance of coming true.

VII

Some account should be given of the actual method Bacon suggests we should use in our approach to nature. As a preliminary he develops his doctrine of *idols* or false ideas which stand in the way of our attaining true knowledge. He finds four types of such ideas : (1) those that have their origin in human nature itself, i.e., in the limitations of perception and intelligence; (2) mistaken ideas arising from our personal character and education; (3) the way words may trick us by their ambiguity, emotional content, etc.; and (4) how ideas derived from different philosophies (*weltanschauung*) may bias our thinking. In all this there is some resemblance to the Cartesian method of doubt. It is only by laying aside "received opinions and notions" and making, as it were, a new start that we will be able to make a proper use of his new instrument.

Bacon's method²³ proceeds by listing the experimental observations relevant to a specific enquiry into three tables : (1) a table containing all the known instances in which the simple phenomenon whose cause we are trying to discover is present, for example, the phenomenon of heat; (2) a table containing instances corresponding to those in (1), except that the phenomenon is absent; and (3) a table containing instances in which the phenomenon is present in varying degrees.²⁴ Now in order to find the cause of heat we have to discover another phenomenon which always occurs with it, is always absent when it is absent and always increases or decreases with it. This we do by examining all the possible alternatives listed in these tables, excluding all except the one which proves adequate. This is the cause we are in search of. If we could carry out this process of exclusion thoroughly, we would arrive at the cause of heat, which Bacon hazards a guess is a form of motion.

As it is usually not possible to carry out a complete survey of all the instances of any phenomenon, this renders Bacon's process of exclusion inconclusive. Further, the elements in Bacon's tables are never clearly defined in quantitative terms. They merely enable us to establish certain vague correspondences between phenomena. Although they may show that certain natural phenomena are functions of others, they do not reveal the precise form these functions take on, as these correspondences are not expressed in terms of some mathematical law, but merely in vague qualitative terms. Bacon also believed that his method could give certain conclusions. In this he was undoubtedly mistaken, as the results of inductive reasoning can never be more than probable.

A basic assumption underlying Bacon's method is that nature consisted of a small number of natural kinds out of which its rich complexity was constructed. He compared this with an alphabet, and suggested that the only way we can learn to understand nature is by learning its alphabet. Galileo had asserted that the book of nature is written in the mathematical language, the letters of which are triangles, circles and other geometrical figures. Bacon seems to have approached this question from a rather different direction, that of codes and ciphers. He had developed fairly early in his career a biliteral cipher by means of which all the letters of the alphabet could be resolved into permutations of the two letters *a* and *b*. He clearly saw that any one difference can be made a ground of a code of signals; he thus used what in effect is a binary code. It is interesting to note that modern information theory, which is based on a similar code, has been applied to genetics to explain how the biological organism can be built up from a few simple elements in the D.N.A. molecule.

Bacon tells us that since particular concrete things are infinite and transitory, we need to search for the abstract natures which determine what properties a concrete thing will have, and which are few and permanent. "That these natures are like the alphabet

or simple letters, whereof the variety of things consisteth; or as the colours mingled in the painter's shell, wherewith he is able to make infinite variety of faces and shapes".²⁵

Curiously enough, Galileo outlines a somewhat similar view. If we take, he says, the alphabet itself, we may gather out of it a most perfect system. "For there is no doubt but that he who knows how to couple and correctly dispose this and that vowel with the right consonants may gather thence the infallible answers to all doubts and deduce from them the principles of all sciences and arts. In the same manner the painter, from many simple colours laid individually upon his palette proceeds, by mixing a little of this and a little of that with a little of the third, to represent life-like men, planets, buildings, birds, fishes".²⁶ It will be seen that this passage and the one quoted above from Bacon have a remarkable similarity. There is, of course, the possibility that the ideas expressed in both cases were fairly commonly held at that period. But in view of the somewhat satirical context in which Galileo's remarks occur, there is some possibility that he may have had Bacon in mind here.

To sum up, Galileo and Bacon wished to break away from the old Aristotelian modes of thought, and to put science on a new basis in which the part played by observation and experiment was to be emphasised at the expense of an appeal to authority and syllogistic reasoning. The method of Galileo, as we have seen, comes to much the same thing as the hypothetico-deductive method employed in physical science. It differs from Bacon's view, since he believes that the function of experiment is simply to test theories rather than to help to discover them. He also believes that once such an hypothesis has been verified, it must hold with certainty. In this he is at one with Bacon who also believes that his method of exclusions can give certainty. On the other hand, Galileo did not seem to pay much attention to co-operative scientific activity; science for him was largely an individual affair. Since Bacon

looked largely for qualitative correspondences his method was, within its limits, probably of greater applicability to such fields of enquiry as biology and sociology than to the physical sciences. Indeed, J. S. Mill, who adapted Bacon's methods believed that they could form a basis for the social sciences.

As we have seen Bacon, unlike Galileo, was essentially interested in making clear the methods used by the scientist, and finding out what was or was not essential to them. He also believed that his own method could revolutionise the process of scientific discovery by formalising it. However, the fact that Bacon was largely unsuccessful in his enterprise must not make us overlook that this is a field still worthy of some investigation. The division of labour in science has already gone some way in making the process of scientific discovery a product of group rather than individual activity. We cannot rule out that at some future date certain of these procedures may be taken over by mechanical devices, or by some combination of man-machine.

Dijksterhuis has pointed out that we can only ignore Bacon's work at our peril, and that even if we enlarge on his defects his inspiring influence is not destroyed by this. As he puts it, "The Athenians when obliged to support Sparta in war, instead of soldiers sent the lame poet Tyrtaeus. His fighting value was nil, but with his war-songs he inspired the Spartans so greatly that they were victorious. Bacon was—to speak in his own style—the Tyrtaeus of seventeenth century science. Without personally enriching it with concrete discoveries, he inspired numerous others to further it".²⁷

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NOTES

1. *Two Great Systems*. Third Day.
2. *Two Great Systems*. Second Day.
3. Ernst Mach, *The Science of Mechanics* (English Translation), p. 161.
4. Thus in dynamics a moving body is conceived as a quantity of matter concentrated at its centre of gravity—traversing a given space at a given time.
5. Eddington, *The Nature of the Physical World*, pp. 251–2.
6. *Two New Sciences*. Third Day.
7. Letter to Ingoli.
8. *Great World System*. Second Day.
9. Cf. Dijksterhuis, *Mechanization of the World Picture*, p. 353.
10. For example, in Galileo's derivation of his law of squares he found it confirmed during repeated experiments with a groove in an inclined plane along which a ball rolled down. In this particular case the experimental verification consists of a series of measurements, showing the concomitant variations in space travelled and time passed.
11. Dijksterhuis, *ibid.* p. 340, argues against such a view. He refers to some rough notes of Galileo in which he attempted to derive his law of squares. In this, he tells us, Galileo "has to resort to the most tortuous logical devices in order to deduce from an untenable premise a correct result ... And finally, when certain statements in his letters are taken into account as well, it proves the complete baselessness of the belief tenaciously maintained by supporters of the Galileo-myth, namely that he discovered the law of squares by performing with a falling body a number of measurements of distance and time, and noting in these values the constant ratio between the distance and the square of the time".
12. Sir David Brewster, *Martyrs of Science*, p. 93.
13. Quoted from *Francis Bacon*, by J. G. Crowther, p. v.
14. Harvey, the discoverer of the circulation of the blood, who was also Bacon's physician, is reputed to have said that Bacon wrote about science as a Lord Chancellor. In his *Francis Bacon* (p. 11), J. G. Crowther considers this to be a merit. He wrote, he says, as "an experienced and responsible statesman, and not as a clever specialist skilful in solving particular technical problems". We have today many skilled scientists but few statesmen who can administer science as an integral part of modern life.
15. Jevons, for example, referred to Bacon's notion of scientific method as a form of scientific bookkeeping. In recent times Bacon's method of induction has been severely criticised by Popper, who comes out in favour of the hypothetico-deductive method.

16. Two recent books emphasising this aspect of Bacon's work are : *Francis Bacon : Philosopher of Industrial Science*, by Benjamin Farrington, 1951; *Francis Bacon : The First Statesman of Science*, by J. G. Crowther, 1960.
17. *Lord Bacon*, p. 169.
18. *Novum Organum*, p. 129.
19. Cf. Crowther, *Ibid.*, pp. 5-8, on the difference between Bacon's and Galileo's methods.
20. *Novum Organum*. Preface.
21. *Ibid.*, p. 9.
22. *Principia Mathematica*. Book 2, Sec. 7. Scholium. Exp. 4.
23. In his method Bacon emphasises what was later called by J. S. Mill the principles of agreement, difference and concomitant variations as instruments of empirical analysis. Although these methods were being used by the scientists of his day, among whom Galileo must be counted, and had for that matter been implicitly used at all times by ordinary men, it was Bacon who first clearly formulated them. What he did was to show the important part played by analogies of different sorts in the inferences of science and daily life.
24. Galileo in *Two Great Systems*, Second Day, puts forward the method of concomitant variations as follows. "Thus I say that if it is true that one effect can only have one basic cause, and if between the cause and the effect there is a fixed and constant connection, then whenever a fixed and constant variation is seen, there must be a fixed and constant variation in the cause."
25. *Valerius Terminus*, Cap. 13.
26. *Great World Systems*. Second Day.
27. *Ibid.*, p. 402.

THE CONCEPT OF 'EXISTENCE' AND ABSOLUTE SKEPTICISM

The existence or reality of different things which is almost a truism to us has been challenged by Absolute Skeptics in different ages. A view called the theory of 'Sarvaśūnyatā' (Absolute Nihilism) advocating total non-existence is found to be reported and criticised by Gautama in his 'Nyāya-Sūtra'. We find, again, in Greek philosophical literature a theory of total non-existence expounded by Gorgias of Leontini. Another peculiar type of Absolute Skepticism called 'Śūnyavāda' has been sponsored by Nāgārjuna, the chief exponent of the Mādhyamika school of Buddhist Philosophy. Absolute Skeptics are thus found to repudiate in different ways the concept of existence or reality and the cogency of their arguments cannot *prima facie* be ignored. And it would not be intellectually proper to make an assessment of the common-sense view regarding the *existence* of different objects of this world without an examination of these different types of Skeptical arguments.

The present discourse is concerned with an elucidation and assessment of the first of these three types of Absolute Skepticism, viz., Absolute Nihilism or the theory of 'Sarvaśūnyatā'.

Gautama mentions in his 'Nyāya-Sūtra' a peculiar type of Absolute Skepticism which has been designated by the later writers of the school as 'Sarvaśūnyatāvāda' (Absolute Nihilism). This theory asserts that everything is of the nature of 'nothing' because there is in every positive thing the absence of every other thing.¹ We find that there are different types of things with different forms and we give them different names. One particular type of animal is called 'cow', while another 'horse'. It is also seen that the peculiarities of one type of entities are not found in another: the peculiar features of a 'cow' are absent in a horse. In other words,

a 'cow' exists as a 'not-horse'. This means, according to the theorist, that what is called a 'cow' is constituted by some absence. In like manner, a 'book' exists as a 'not-tree' and a 'tree' exists as a 'not-bird'. Hence it is to be admitted, says the Absolute Nihilist, that there is in everything of this universe the absence of every other thing. And since 'absence' is something unreal or 'nothing', everything which is alleged to be real or existent is as a matter of fact unreal or non-existent.

The Absolute Nihilist emphasises that since there is in everything the absence of every other thing, everything is to be identified with absence or 'nothing' itself. As in the statement 'the flower is blue', the 'flower' is to be regarded as identical with 'blue', so in a statement like 'the horse is not-cow' the 'horse' is to be regarded as identical with the non-existence or absence of the 'cow'. In other words, by 'the flower is blue' is meant 'what is called flower is non-different from the thing having blue colour.' And by 'horse is not-cow' is meant 'what is called horse' is as a matter of fact non-different from the absence or non-existence of the 'cow'.

Now the assumption underlying this argument is that the proposition 'the flower is blue' is an identity-proposition in which both the subject and the predicate stand distributed. This amounts to saying that the entire class of 'flower' and the entire class of 'blue' are co-extensive. On this analogy, it is argued by the Absolute Nihilist that the proposition 'the horse is not-cow' is also an identity-proposition. That is to say, both the subject and the predicate of this proposition stand distributed. And this amounts to saying that the *entire class* of 'horse' and the *entire class* of 'cow' are co-extensive.

It might be remarked, however, in this connexion that both the subject and the predicate of a proposition stand distributed only in a definitional proposition like 'all men are rational'. But a proposition like 'the flower is blue' cannot by any means be regarded as a definitional one. The quality 'blue' is here only

predicated of the particular object called 'flower'. One cannot call it an identity-proposition because of the fact that the same attribute 'blue' can be predicated of other things as well, e.g., 'cloth', 'sky', 'sea' and so on. If a statement like 'the flower is blue' is taken to be an identity-proposition, then a similar statement, say 'the sky is blue' should also be taken to be an identity-proposition. Now if 'flower' and 'blue' were non-different then 'sky' and 'blue' would also have to be taken to be so. But that would be equivalent to saying 'the flower is the sky'. And this would be nonsense. To consider now the statement 'the horse is not-cow' which is assumed by the Absolute Nihilist to be an 'identity-proposition'. The 'horse' is here claimed to be identical with the non-existence or absence of the 'cow' only because in this statement 'not-cow' is predicated of 'horse'. But it is to be kept in mind that 'not-cow' can be predicated of other things as well, e.g., 'table', 'chair', 'tree', 'star' etc. In short the absence or non-existence of a 'cow' is in everything except the cow itself. And the non-skeptic would point out that if 'horse is not-cow' is claimed to be an identity proposition, then a similar one like 'tree is not-cow' should also be regarded as an identity-proposition. But if that were the case, then 'not-cow' and 'horse' and 'tree' would turn out to be non-different. And, as a consequence, we are landed in the absurdity of concluding that 'horse is tree'. Not to speak of the non-skeptic, the Absolute Skeptic himself will not surely be ready to accept this meaningless statement in support of his nihilistic contention that everything is of the nature of 'nothing' or, in other words, that 'all things are unreal'.

It might be urged, however, on behalf of the Absolute Nihilist that the statement above with all its meaningless-ness would not at all be unwelcome to him. For, as on his nihilistic view, all things of this world are without exception unreal or non-existent, there would be no harm in identifying two unreals, viz. a 'tree' and a 'horse'.

But the non-skeptic would point out that to accept a proposition like this would mean for the Absolute Skeptic nothing but a refutation of his own Nihilism. Since, according to a Nihilist, all things without exception are unreal, he would not demur to the equation 'horse=tree'. And to keep consistency with his Absolute Nihilism he should not also have any hesitation to accept another equation 'horse=cow'. Now by accepting such an equation, the Nihilist would at once be committed to two contradictory propositions, viz., 'horse is *not-cow*' and 'horse is *cow*'; for to him there should be no difference between 'not-cow' and 'cow'. But these two propositions are directly contradictory to each other. The Nihilist thus by his own logic is forced to infringe the law of non-contradiction.

The Absolute Nihilist nevertheless might urge that to his Absolute Skepticism, a logical law like the law of non-contradiction has no more sanctity than the so-called reality of this or that object of the world. On his view everything is unreal. And this is true quite as much of the so-called logical laws. Common people may think of a logical law as an item of reality very much as they think of a horse or a tree as an item of the real world. But, according to an Absolute Skeptic, they all sail in the same boat. The Nihilist is as much prepared to repudiate the law of non-contradiction as he is prepared to repudiate the reality of this or that thing of this world.

But it might be remarked that if the Absolute Skeptic denies the reality of the law in question, then he must have to do justice to the truth-claim of two statements describing two opposite facts, e.g., 'snow is white' and 'snow is not white'. And the non-skeptic would point out that if it be so, then the Nihilist should not also hesitate to admit that 'everything is real'—a view which contradicts his own theory that everything is unreal. But if he is thus once committed to the reality of all things, then how could it be possible for him to sustain at the same time his own theory

of Absolute Nihilism ? By a denial of the law of non-contradiction, therefore, the Absolute Nihilist would have to discard Absolute Nihilism itself.

Now it might be urged on behalf of the Absolute Nihilist that the acceptance of the non-skeptic view does not mean for him the giving up of his own Absolute Nihilism. For the law of non-contradiction is, for him, without any value at all. This argument, however, can hardly be accepted. If the contradiction mentioned above is actually considered by the Skeptic as not anything damaging to the nihilistic position then why does he not admit the common-sense claim regarding the reality of things ? But instead of it he is found to be quite reluctant to accept the non-skeptic view. We find him rather engaged in *establishing* his own thesis that everything is unreal by repudiating the common-sense view regarding the reality of things. And this shows that the Nihilist's denial of the law of non-contradiction is not anything genuine but is a mere playing with words.

A further difficulty regarding the position of the Absolute Nihilist has been pointed out by Vātsyāyana in his commentary on Gautama's 'Nyāya-Sūtra'. According to him, in this argument the proposition to be proved and the ground for the proposition are mutually contradictory.² To elucidate. The argument supporting the theory of 'Sarvaśūnyatā' is "Everything is of the nature of 'nothing' because there is the absence of every positive thing in every other thing". Now in this argument the 'proposition to be proved' is 'everything is of the nature of nothing' : and the 'ground' is : 'there is the absence of every positive thing in every other thing'. Thus the Absolute Nihilist at first asserts and establishes the reciprocal absence of things in one another and then taking it as a 'ground' he claims to establish the absence or 'nothingness' of everything. But as Vātsyāyana emphasises, if the reciprocal absence of positive things in one another is admitted, then the thesis 'everything is of the nature of nothing

cannot be established.³ For the assertion made in the ground that 'there is the absence of every positive thing in every other thing' implies the reality of different positive entities. If anybody says that a horse is not a cow, then he surely admits the reality of both the horse and the cow. Otherwise he could not make such an assertion. The Absolute Nihilist, however, tries to establish in the 'proposition to be proved' a view just opposite to what is asserted in the 'ground', i.e., the non-existence or unreality of everything. Again, if 'everything' without an exception is claimed to be 'of the nature of nothing', then how is it possible to assert the reciprocal absence of positive things in one another?⁴ Thus to admit the 'proposition to be proved' is to deny the 'ground' for the proposition and, again, to admit the 'ground' is to repudiate the 'proposition to be proved'.

Moreover, the 'proposition to be proved' by the Absolute Nihilist itself appears to be quite self-defeating. To explain. The 'proposition to be proved' is that 'everything is of the nature of nothing'. The two significant terms of this proposition are 'everything' and 'nothing'. Now the term 'everything' signifies a comprehensive totality of an infinite number of things. 'Infinity' (aśeṣatva) and multiplicity (anekatva) are thus the two definite characteristics of the things signified by the term 'everything'. Again, by 'the term 'nothing' is meant a denial of anything real.⁵ Now it is to be noted that the term 'everything' signifies 'things having an essence' (sopākhya), whereas the term 'nothing' can be predicted only of 'something having no essence' (nirupākhya). But in the statement under reference the term 'nothing' is predicted of 'everything' and Vātsyāyana points out that it is a contradiction in terms. For a term signifying something *having no essence* (nirupākhya) is here identified with another term signifying *something having essence* (sopākhya).⁶ And it amounts to asserting the non-existence of what is already existent.

It might be urged, however, on behalf of the theory of 'Sarvaśūnyatā' that the statement 'everything is of the nature of

nothing' is to be interpreted as "that which is commonly described as 'everything' is as a matter of fact 'nothing'".⁷ Hence the self-contradiction as pointed out by Vātsyāyana is to be regarded as only apparent.

Vātsyāyana nevertheless emphasises that the contradiction cannot be removed even by an interpretation like this. By the word 'nothing' is never understood a thing having the two characteristics, viz., 'infinity' and 'multiplicity'.⁸ It always means something which is devoid of every characteristic i.e., which is absolutely unreal. In other words, the term 'nothing' cannot give us the idea of a comprehensive totality of an infinite number of things. Hence entities which are signified by 'everything' can never be identified with 'nothing'.

It has been further emphasised by Vātsyāyana that if, as the Absolute Nihilist claims, 'everything' were to be regarded as having the nature of 'nothing', then the term 'cow' should also signify nothing but mere 'nothing'. But as a matter of fact we find that the word 'cow' stands for an entity having the characteristic 'Cowness' as its special feature. By the term 'cow' we never understand mere 'nothing' which is devoid of every characteristic.⁹

It might be argued, however, by an Absolute Skeptic that this objection urged by Vātsyāyana is without any value. For according to the theory of 'Sarvaśūnyatā', the 'characteristic' of an object is also to be regarded as unreal. Thus the 'Cowness' in question should be regarded simply as 'nothing'. In other words, there are not things like 'cowness', 'horseness', 'bookness' etc. which can be taken as the so-called 'differentiating characteristics' of different real entities like 'cow', 'horse', 'book' etc.

But if this is what the Nihilist really means then why does he not assert the absence or non-existence of an entity in the self-same entity? According to the theory of 'Sarvaśūnyatā', since there is in every positive thing the absence of every other thing,

everything is of the nature of 'nothing'. That is to say, an object, say a 'cow' is identified by him with 'nothing', because a cow exists as a 'not-horse'. Now Vātsyāyana urges that if there is really nothing like 'cowness' or 'horseness', then the Nihilist should also claim that a cow exists as a 'not-cow' instead of saying that a cow exists as a 'not-horse'. Why does he not proclaim that 'not-horse' is horse or cow is 'not-cow'?¹⁰ 'A cow exists as a 'not-horse' means that the 'differentiating characteristic' of a horse is not in a cow. But, since, on the Nihilistic thesis, there is not really anything which might be regarded as the 'differentiating characteristic', the Nihilist has no right to distinguish between 'not-horse' and 'not-cow'. An Absolute Nihilist, however, as a matter of fact does never claim that a cow is of the nature of an absence of a cow. An assertion like this would be, according to the Nihilist's own judgment, self-stultifying. Vātsyāyana emphasises that the Skeptic's reluctance to admit the absence of 'Cowness' in a 'cow' is a fact which proves the reality or existence of a cow.¹¹ If it were not so, then the Nihilist would not hesitate to admit propositions like 'cow is not-cow' or 'horse' is not-horse'.

It is to be remarked, further, that the nihilistic statement that 'everything is of the nature of nothing' implies the existence of 'everything' rather than proving 'universal' non-existence. And this point is taken up by Uddyotakara who emphasises that since every correct predication implies the reality of something, the predication of 'nothing' itself implies the reality or existence of 'everything'. To explain. A *valid* judgment cannot express any true cognition if the cognitum, that is, the object to be cognised has not any reality. To take for example, a true statement, like 'the sky is blue'. This statement would not be regarded as true if there were not any real entity answering to its subject-term 'sky'. To take now another proposition, e.g., 'the sky-flower is red'. This judgment does not express any true cognition since there is no actual object corresponding to its subject-

term, that is, the 'sky-flower'. In other words, something is described in this statement about an object which is admittedly unreal or non-existent, and, therefore, this statement cannot be taken to be a true one. Now Uddyotakara points out that if the statement 'everything is of the nature of nothing' is assumed by the Nihilist to be true, then, surely, the reality of 'everything' has got to be admitted by him. For, as has been stated above, a thing which is unreal cannot be regarded as the subject of a true proposition.¹² Thus Uddyotakara points out that the predication of 'nothing' itself establishes the existence of 'everything' instead of repudiating it. And, again, if the reality of 'everything' is denied, then it would mean the denial of the truth-claim of the nihilistic thesis under reference.

The Nihilist may here urge that this difficulty pressed by the non-skeptic against the nihilistic position applies to the non-skeptic's own position as well. Does he not accept the truth of a statement like 'the cow is not-horse'? Does not the statement predicate a 'nothing' of the 'cow' which is admitted to be existent or real for the reason that it is the subject of a true judgment? And if this statement is accepted as quite legitimate by the non-skeptic, then he should not hesitate to accept the truth-claim of the nihilistic statement 'everything is of the nature of nothing'? The Nihilist's position is rejected by Uddyotakara as self-contradictory on the ground that the predication of 'nothing' of 'everything' implies the 'existence' or reality of the latter. And the Nihilist would emphasise that on the same logic a proposition like 'cow is not-horse' should also be treated as self-contradictory, for here also we have a case of predication of 'nothing' (viz., not-horse) of something real (viz., cow).

It is to be replied, however, in the manner of Vātsyāyana that the predication of 'nothing' in the statement above, viz., 'a cow is not-horse' could not indeed be justified if it would mean simply the denial of the existence of a real entity called

'cow'. It is to be admitted indeed that the thing meant by the subject-term of a proposition should be something existent. But the existence of a 'cow' is not what is denied in the statement in question. What is here denied is only a relation of identity between the cow and the horse. In other words, this statement amounts to saying that 'the cow exists but it is not a horse' and clearly there is no contradiction involved in such a statement. But the case of the nihilistic statement is different altogether. By predicating 'nothing' of 'everything', the Nihilist here intends to deny the very *existence* of the entities signified by the phrase 'everything' and not of any of their particular characteristics. And at the same time he also asserts the reality of 'everything' by making it the subject of the proposition. And thus he is landed in the absurdity of asserting that real entities are unreal.

A fresh argument in support of the theory of 'Sarvaśūnyatā' has been reported in Vācaspati's 'Tātparyatīkā'. It runs as follows :—

The entities alleged to be real are either eternal or non-eternal. Now it has been argued in favour of Absolute Nihilism that it is not possible to prove the eternal existence of a thing : nor, again is it possible to prove the reality of an entity that is called emergent. And, as a consequence, the notion of existence or reality turns out to be unintelligible.

To begin with the difficulties in regard to the existence of a thing which is supposed to be eternal. It is to be noted that the argument in question can be made plausible only on the assumption that to be real a thing must have some causal efficacy: that is to say, it has to become the cause of something else directly or indirectly. Things like 'the son of a barren woman' and the 'hare's horn' do not possess any causal efficacy and these things are not admitted to be real. Now since 'the reality of a thing is supposed to be constituted by its causal efficacy, the causal efficacy of an entity admitted to be eternally real

should also be taken to be something eternal. But to admit an eternal causal efficacy of anything is to admit a perpetual effectuation. That is to say, it is to be admitted then that the object produces its effect unceasingly. But we find as a matter of fact that the effects of an object are not produced always and without any cessation¹³. The effects are rather perceived to come into being in a succession and not all at once. And that would mean that the object taken to be a cause ceases to effectuate at least for a while. But if that be the case, then its causal efficacy does not surely persist. Now if it is claimed that the efficacy remains in the object as before, then the break in effectuation cannot be explained. There is no reason why the effect should not be produced if the cause has the efficacy required. Causal efficacy cannot be said to remain in an object even when it does not cause anything. But if the efficacy is not admitted to be something eternal, then the object, viz., the cause cannot be admitted to be eternal. It follows then that a thing would exist at the time of exercising its causal efficacy and it would turn out to be non-existent at the very moment when its effectuation ceases. It is, however, patently absurd to assume that the self-same entity should some times be real and some times unreal.

So much for the difficulty regarding the existence of entities supposed to be eternal. To take up now the Nihilist's difficulties in admitting the existence of things which are non-eternal, i.e. emergent. A non-eternal object is by its nature destructible. It emerges at a particular instant and is admitted to perish subsequently. A jar, for example, emerges at a particular instant of time, say 'ti' and it perishes at a subsequent instant, say 'tx'. Now the Nihilist urges that if it is once admitted that a thing perishes at a subsequent instant then where is the difficulty in asserting that it perishes at the very moment of its emergence? A thing which is *by its nature* destructible may be destroyed at any moment and there is no good reason to assume that the very moment of its destruction must be 'tx' and not

'ti'¹⁴. In other words, the self-same temporal instant might be regarded as the moment of emergence of a thing as well as of its destruction. And if that could be the case, then such an object could not be the cause of anything. It could not be admitted to have causal efficacy, since to be the cause of an effect, a thing should have to *persist* for one instant at the least. But a thing which cannot be regarded as the cause of anything else cannot be called real; for it has been assumed by the objector that the existence of an object is constituted by its causal efficacy.

Now this skeptical argument as reported by Vācaspati is based on the assumption that the existence of a thing is constituted by its causal efficacy. It is to be remarked, however, that this assumption can hardly be conceded and for the following reasons :

(i) This assumed proposition is to be regarded either as analytic or as synthetic and, the non-skeptic would point out that it is neither. To explain. A proposition is called 'analytic' if its predicate is contained in the subject or is a part of the meaning of the subject. The proposition to be examined, viz., 'the existence of a thing is constituted by its causal efficacy' cannot, however, be called 'analytic' in this sense because the idea of 'causal efficacy' is not contained in that of 'existence'. If it were so, then the proposition would mean that the existence of a thing is its causal efficacy. But as a matter of fact what we understand by 'existence' is not what we understand by 'causal efficacy'. The proposition in question, therefore, cannot be regarded as analytic.

The proposition then is to be regarded as 'synthetic'. A proposition is called 'synthetic' if its predicate is not already contained in its subject-idea. Now the truth of a synthetic proposition is either to be demonstrated or it must be something self-evident. But the truth of this proposition under reference can neither be demonstrated nor can it be taken to be self-evident.

To demonstrate the truth of a proposition it is necessary to offer some valid ground for the proposition. In the present case, the valid ground cannot be put forward without taking for granted the truth of the very proposition that is sought to be demonstrated. In other words, if we are to demonstrate the truth of the proposition 'the existence of a thing is constituted by its causal efficacy' on the ground 'X', then this 'X' itself will have to be taken as something existent. But in order to claim existence for itself, the ground 'X' must have causal efficacy for itself. Now this is clearly a case of *petitio principii*.

Again, the proposition 'the existence of a thing is constituted by its causal efficacy' cannot be regarded as self-evident. For a proposition is called self-evident when to understand it means acceptance of its truth. But the proposition in question cannot be called self-evident in this sense since its truth is not universally accepted. By 'existence' all persons do not as a matter of fact understand 'causal efficacy'. A thing like a 'table' or a 'chair' appears to everybody as something real or existent but not always as the cause of an effect. If this proposition were self-evident as the Nihilist might claim it to be, then it would not be possible for the non-skeptic to challenge its validity. The proposition 'the existence of a thing is constituted by its causal efficacy' cannot, then, by any means be regarded as self-evident.

(ii) It might be urged, further, on behalf of the non-skeptic that sometimes an unreal entity appears to have causal efficacy, e.g., when an illusory snake causes fear. But if existence of a thing is assumed to be constituted by its causal efficacy, then it would not be possible to distinguish an illusory appearance from a real one. In other words, if causal efficacy is found to be in an entity which is admittedly unreal, then it is difficult to see how causal efficacy can be regarded as the mark of reality.

The Nihilist would urge, however, that this second objection is not at all unwelcome to him. For this objection establishes

in another way the thesis of Nihilism rather than repudiating it. To elucidate. The Nihilist intends to deny the existence of everything. That is to say, according to him, there is nothing that can be called real. And, therefore, it does not matter anything to him if a thing alleged to be real cannot be distinguished from something that is admittedly unreal. Thus the Nihilist would emphasise that since even an illusory object can have causal efficacy, there does not appear to be any distinction between the existence of a thing and its non-existence.

It is to be pointed out, however, on behalf of the non-skeptic that if indeed the Nihilist had no mind to distinguish between existence and non-existence of a thing, i.e., between 'is' and 'is not', then all the arguments given by him in favour of Nihilism would be regarded as useless. The Nihilist intends to establish in his theory of 'Sarvaśūnyatā' or Absolute Nihilism that the entity alleged to be existent is as a matter of fact non-existent. Thus it appears that he himself makes the distinction between existence and non-existence. And the Nihilist himself surely does not regard his own arguments as futile or unavailing. How can he claim then that there is not actually any distinction between a thing that is called real and another that is admittedly unreal?

(iii) It has been objected further by the non-skeptic that to admit that 'the existence of a thing is constituted by its causal efficacy' is to admit a regressus ad infinitum¹⁵. To elucidate. According to the Skeptic, that thing only should be regarded as real or existent which has causal efficacy. This causal efficacy should, however, be regarded either as real or as unreal. Now if causal efficacy is admitted to be real or existent then, as the non-skeptic points out, to establish its reality we must have to postulate a second causal efficacy, since the reality of a thing is supposed to be constituted by its causal efficacy. This second causal efficacy, again, to be real should have a third causal effi-

cacy and so on ad infinitum. Thus to admit that the existence of a thing is constituted by its causal efficacy would be to admit a vicious regress; and the Nihilist surely would not accept this regress.

Again, if the causal efficacy is regarded as something unreal, then it would mean that the existence or reality of a thing is described in terms of non-existence or unreality. And the absurdity of the position is patent. The nihilistic assumption under reference thus cannot be accepted as valid. As a consequence, the Skeptical argument in favour of the theory of 'Sarvaśūnyatā', as reported by Vācaspati has no legs to stand upon.

It is to be observed further that the argument repudiating the reality of emergent objects appears to involve another assumption viz., that 'the genesis and destruction of a thing may occur at the same instant'. This assumption is also, on the non-skeptic view, equally untenable and for the following reason. Since an emergent entity is destructible by nature, the Nihilist urges that a thing which is *destructible by nature* may perish at any moment and that there is no reason why it should not be the case that the genesis and destruction of an object, e.g., a 'jar' take place at the same time 'ti'.

It might be urged, however, that an assumption like this cannot be admitted without violating the causal law. To explain. The destruction of a thing is not possible if there is no cause of the destruction. As nothing can emerge without any cause, so nothing can be destroyed without any cause. And since a cause is antecedent to its effect, the conditions of the destruction of a thing must precede the phenomenon of such 'destruction'. But the destruction of 'A' requires the emergence of 'A' itself. If 'A' itself does not exist at all, then what will be destroyed? Now let it be assumed that 'A' emerges at the instant 'ti'. And if its destruction is assumed to take place at the self-same instant, then the cause of the destruction in question, should have to exist prior to it. Now a 'blow' may be the cause of the

destruction of a 'jar'. But if the 'jar' itself were to emerge at 'ti', then how can the 'blow' occur at an instant prior to 'ti'? For the 'blow' cannot surely take place when there is no jar at all. The Nihilist might try to overcome this difficulty by asserting that the cause of the destruction of a jar and the destruction itself emerge together at 'ti' along with the emergence of the 'jar'. But this would mean that an effect and its cause can emerge at the same time. And that would be an infringement of the causal law that a cause must antecede its effect.

It might be urged, however, from the Nihilist's camp that the contemporaneity of the emergence and destruction of a thing can be justified if the destruction is assumed to occur when a thing is in the 'process' of emerging. A 'jar' may emerge at an instant, say 'ti'. Now if it happens that the destruction of the jar takes place in the 'process' of the emerging of the jar, then 'ti' which is the instant of emergence turns out to be the instant of destruction as well. And thus the contemporaneity of the emergence and the destruction of an entity can be made intelligible without an infringement of the causal law.

The non-skeptic would, however, emphasise that there is no actual state of a thing which may be described as the 'process of emerging'. It is a matter of fact that a thing does not exist before its emergence, and having emerged it persists as long as it is not destroyed. Thus we find in connexion with an object two states, viz., a 'state of emergence' and a 'state of persistence', and we cannot discover any 'process of *emerging*' other than these two states. Then why should one admit the reality of a thing, called the 'process of *emerging*'? To consider the case of the 'jar'. Before the emergence (of the jar) the lump of clay out of which a jar is to be produced is not regarded as the 'jar'. Nobody, again, speaks of a jar when it is only half-finished, because it does not serve any purpose of a jar at that time. And if the half-finished thing is destroyed, we do not say that a jar is

destroyed. It is called a 'jar' just from that moment when it is finished and that very instant is regarded as the moment of its genesis. Therefore, to use a phrase like 'state of *emerging*' or 'a process of *emerging*', is, according to the non-skeptic, nothing but to use meaningless words. The contemporaneity of the genesis and the destruction of an object cannot then be admitted.

It might be suggested, however, by the Nihilist that the contemporaneity in question can be justified if it is admitted that the emergence and destruction of thing can have the self-same cause. To elucidate, A thing comes into being at 'ti' and, therefore, the cause of its emergence must be regarded as existing prior to 'ti'. Now if it is assumed that its destruction is also conditioned by that same cause then the destruction is to be admitted to take place at 'ti'.

But it is to be emphasised, the non-skeptic would say, that this Skeptical suggestion is quite inadmissible. For it is obvious that the fact of genesis is opposed to that of destruction and vice versa. To claim, therefore, the self-same cause for the emergence and the destruction of a thing would be to assert that the same thing can produce two opposed effects. And it is like admitting that fire makes a thing hot and cold. The absurdity of such an assertion is patent.

This difficulty cannot be overcome even by asserting that two different causes may operate at the same time to produce at the same instant two opposed effects. For if two effects are found to be opposed to each other, their causes must also be opposed to each other. And two opposed causes cannot surely operate at the same time in the same context. Even if it were taken for granted that two opposed causes could operate at the same instant in the same context, none of them would be able to effectuate anything since they would always counteract each other. It is to be contended, therefore, that the contemporaneity of the genesis and the destruction of a thing as suggested by the Nihilist cannot be justified by any means.

But as far as Gautama's writings are concerned, it appears that the exponents of Absolute Nihilism cannot be kept silent by all this. He is found there to refer to another argument of the Absolute Nihilist (Sarvaśūnyatāvādin) in which the reality of a thing has been denied on the ground of its relative existence. By 'relative existence' (sāpekṣatva) of a thing is meant that a thing exists only in dependence on the existence of another thing. It has been observed by the Nihilist that every object is relative in its character, e.g., a 'short thing' is regarded as 'short' in relation to a 'long one' and a 'long thing' is called 'long' in relation to a 'short one'. 'Farness' implies 'nearness' and the word 'large' can be understood only with reference to the word 'small', and so on. Again, the 'difference' of one thing from another thing is also to be admitted as dependent on the existence of *that other* thing since it is not possible for an entity, say 'A' to be different from 'B' if 'B' itself were non-existent. The existence or reality of each thing is thus to be regarded as relative because it is dependent always on the existence of another thing. The Absolute Nihilist, therefore, urges that the reality (svabhāva) of a thing cannot be established because everything has a relative existence (sāpekṣatva). To take for example, the red colour appearing in a piece of crystal which is unanimously admitted to be bright white. It is perceived, says the Nihilist, that if a red flower is kept near a white crystal, the crystal appears to be red. Now this *red colour* is not regarded as anything real. It is well-known that this red colour exists only in dependence on the existence of the red flower, it disappears as soon as the red flower is taken away. From this analogy the Nihilist asserts that the reality of a thing having relative existence cannot be admitted just like the reality of the red colour appearing on a piece of crystal¹⁶.

Now let us see whether this fresh nihilistic argument can be accepted.

According to the theory of relative existence sponsored by the Nihilist mentioned in Gautama's 'Nyāyasūtra', the reality of one thing 'A' depends on the reality of another thing 'B'. But if, as the skeptic claims, 'A' exists in dependence on 'B', then 'B' should be admitted to have an existence prior to that of 'A': for A cannot be said to 'depend on' B if the latter itself were non-existent. This amounts to saying that in the context of 'A' and 'B', 'B' cannot be regarded as something dependent on 'A'. In other words if, as emphasised by Vātsyāyana, according to the theory of relative existence, the existence of a 'long' object were to depend on that of a 'short' one, then, the 'short' one should be admitted to have an existence prior to that of the 'long' one; again, on the same logic, a 'long' thing is to be regarded also as having an existence prior to that of a 'short' one and that would mean an independent existence of the former. But to admit the independent existence of any one of them is to give up the theory of relative existence.

It might be urged, however, on behalf of the Nihilist that by 'relative existence of all things' it meant that things exist in reciprocal dependence on one another. That is to say, to be real a 'short' thing must have to depend on the reality of a 'long' one and vice versa. And thus things of this world are reciprocally dependent on each other for their reality or existence.

But, as Vātsyāyana points out, this skeptical position is self-defeating. If neither the 'short' nor the 'long' can be said to exist in its own right, then the skeptical contention that they are reciprocally dependent turns out to be unintelligible. Since, on the skeptic view, there is no reality either of the 'long' or of the 'short' it is unintelligible how one can speak of the *dependence* of the 'long' on the 'short' and vice versa¹⁷. That is to say, how can there be a *reciprocal dependence* between two entities which are claimed to be unreal?

And it is to be added that if, for argument's sake, this objection be waived for the present then also the skeptic has to meet a fresh difficulty urged by Vātsyāyana. He points out that if it is admitted that things exist in reciprocal dependence then the existence of two things having equal magnitude appears to be unintelligible. To take for example, the case of two objects having equal magnitude, say, two rods each one foot long. The magnitude of these two rods are, surely, regarded as equal to one another since both are one foot long. In other words, none of them is regarded as 'short' in relation to the other. But, according to the skeptical theory of reciprocal dependence, a 'short' thing cannot be regarded as 'short' by its own nature but its 'shortness' is real only in dependence on the 'longness' of another thing and vice versa. And the non-skeptic urges that the magnitude of these two rods under discussion should not surely be an exception to this skeptic principle. The skeptic should have to say, then, in consistency with this position that one of these two rods equal in magnitude is not 'short' by its own nature but that its 'shortness' is real only in dependence on the 'longness' of the other¹⁸. In other words, one of these two *equal* rods should be regarded as 'longer' or 'shorter' than the other. The conclusion would be then that two rods which are each one foot long are yet not of equal magnitude! How otherwise can it be said that these two rods exist in reciprocal dependence? But to accept a claim like this is to deny that two things can possess equal magnitude. But as a matter of fact the existence of many such objects is claimed by everybody and the Absolute Nihilist has no good ground except his own Nihilism to repudiate this.

Thus the acceptance of the theory of reciprocal dependence of all things makes the existence of two things having equal magnitude quite unintelligible.

It might be urged, however, by the Absolute Skeptic in defence of his own thesis of relative existence of all things that it is true

indeed that two things having equal magnitude are not reciprocally dependent but that they depend for their existence on other things. The 'shortness' of the rod under discussion depends on the 'longness' of a third rod which is more than one foot long.

But it is to be noted that to admit that two things having equal magnitude are real in dependence on a third thing is not to deny that things having equal magnitude do exist independently of each other. And that would be a denial of the nihilistic thesis that things of the universe are real as reciprocally dependent on one another. It is to be concluded, therefore, that the skeptical theory of relative existence of all things cannot in any way be conceded.

But it might be objected on behalf of the opponent that a property like 'shortness' or 'longness' is always admitted to be something relational in character. If it were not so, then surely every object would be regarded as both 'short' and 'long'. Now a thing or a property which is claimed to be 'intrinsic' or real by its own nature does not have to depend for its existence on its relation to any other thing or property. Now if a property like 'shortness' or 'longness' is, the non-skeptic claims, something intrinsic to an entity, then, how is it possible to assert at the same breath that it has a relational character?

It appears, however, that this skeptical difficulty springs from nothing but a confusion between two standpoints which might be denominated as the 'constitutive' and the 'epistemic'. The 'constitutive' standpoint may be described as that attitude in which the analysis of something is done with reference to its constitution or existence, while by the 'epistemic' standpoint is understood an attitude in which something is analysed with reference to its cognition or knowledge. Now a property designated as 'short' is something intrinsic (svābhāvika) and a particular thing which is apprehended to be 'short' is as a matter of fact possessed of this property. And the same is to be said in regard to the

property described as 'long'. And the property in question is called intrinsic or real by its own nature so far as its existence is concerned. But the same case appears to be quite different when one considers the *cognition* of the 'shortness' or 'longness' of a thing; for the *cognition* of the 'shortness' of a thing *depends* on the *cognition* of the 'longness' of another thing. In order to *know* a thing as 'longer' or 'shorter' than another object, it is necessary to have the *cognition* of those two things. As for example, by comparing the magnitude of a mountain and that of an elephant we say that the former is 'larger' than the latter and the latter is known to be 'smaller' than the former. This knowledge is possible only if the magnitude of these *two* objects can be known previously. And thus it is seen that the *knowledge* of the property of the mountain designated as 'large' is relative to *that* of the property described as 'small' belonging to the elephant. But it is to be kept in mind that the reality of any of these properties does not depend on each other.

It is to be emphasised, further, that the skeptical assertion that the *difference* of one thing from another is a proof of the relative existence of two things is also the result of the same confusion between the two standpoints, constitutive and epistemic. Everybody admits that two things, say, 'A' and 'B' are different from each other. But that does not mean surely that 'A' is real, that is, dependent for its existence on 'B' and vice versa. What it only means is that without a knowledge of the nature of these two things it is not possible to *assert* their difference¹⁹.

It is a matter of fact that the reality of an object and the cognition of that object are two distinct things. There are certain things the cognition of which requires the cognition of some other thing, e.g., the knowledge of a thing *as* 'small' requires the knowledge of a thing *as* 'large'; and regarding this cognitive aspect the former is relative to the latter and vice versa. But it would be a mistake to conclude from this that the existence of a thing apart from its awareness is relative to the reality of another

thing. The existence of a thing and its magnitude that is described as 'long' are surely independent of the existence of a thing and its magnitude that is described as 'short'. 'A thing is in the realm of reality' does not always mean that 'the thing is in the realm of cognition'.

Uddyotakara remarks further that one cannot admit even from the cognitive standpoint that *all* things are relative to each other. For as there are some qualities like 'largeness', 'smallness', 'farness', 'nearness' etc., there are also some others like 'colour', 'smell', 'touch' etc. and nobody thinks that qualities like 'smell', 'touch' etc. are relative to each other²⁰ even in regard to their cognitive aspect. The awareness of the red colour of a ball as 'red', for example, does not depend on the awareness of the colour or any other quality of another object.

The Absolute Nihilist nevertheless might say that a thing is surely dependent on its cause and, in this sense, at least the reality of a thing should be regarded as relative to that of another object. It is a truism that without a cause a thing cannot come into being.

But it is emphasised by the non-skeptic that as far as the origination of things is concerned, he has no disagreement with the opponent. It is nobody's point to claim that a thing is an unconditioned real in respect of its genesis. And the non-skeptic does not deny that an object exists in dependence on its cause. What he denies is that a thing is necessarily dependent for its existence on some other thing *which is not any of its causal conditions*. That is to say, the existence or reality of an object, as an effect depends on the reality of its cause but not that it depends on the reality of a thing other than its cause²¹.

We should like to conclude the discussion with an elucidation of four arguments urged by Uddyotakara²² against the nihilistic thesis that 'everything is of the nature of nothing'.

(a) The assertion that 'everything is of the nature of nothing' is based either on some evidence or not. Now if it is

claimed to be based on some evidence, then Uddyotakara asks : Is the evidence itself something real or is it something unreal ? If the skeptic admits its reality or existence then how can he utter in the same breath that *everything* without an exception is of the nature of ' nothing ' ? Again, if the evidence in question is held to be something unreal then the nihilistic statement cannot surely be taken to be valid. For why should one admit the truth-claim of an assertion based on unreal evidence ? And if the thesis in question is regarded as not based on any evidence, then, obviously a statement not supported by any evidence does not deserve to be accepted.

(b) Again, either the nihilistic statement that ' everything is of the nature of nothing ' conveys some sense or it does not. Now if the Nihilist claims that his statement conveys any sense then the Absolute Nihilist must have to admit at least the existence of the sense itself. And thus the nihilistic statement turns out to be self-stultifying. If again, in order to escape from this difficulty the Nihilist asserts that the statement ' everything is of nature of nothing ' does not convey any sense, then it is to be regarded as nothing but a non-sensical collection of words.

(c) Like every assertion this skeptical statement under-reference also requires the presence of a person who asserts something (pratipādayitā). In other words, there must be a speaker of the statement and an auditor. Now Uddyotakara emphasises that if there are actually a speaker and a listener of the nihilistic statement then that would be a direct contradiction of the statement itself. For to assert that the statement in question is spoken by a person and is listened to by another one is to assert the reality or existence of the speaker and the auditor and that would mean the renunciation of the theory of Absolute Nihilism. But if, again, the reality of a speaker and an auditor is not admitted, then the assertion could not be made at all since a statement which is neither spoken nor listened to is no statement at all.

(d) The Absolute Nihilist admits that the sense conveyed by his own statement that 'everything is of the nature of nothing' differs from that conveyed by the non-skeptic's statement that 'everything is of the nature of something'. If it were not so, then he surely would not claim the truth of the former assertion by denying the validity of the latter. Now to admit the difference in question amounts to admitting at least the *reality* of the law of non-contradiction. But that would surely mean the downfall of the Skeptic's Absolute Nihilism itself. If, again, the Absolute Nihilist proclaims that the law of non-contradiction has no more sanctity for him than the other things of the world, then he could not possibly assert the difference between the above two statements, viz., 'everything is of the nature of nothing' and 'everything is of the nature of something'. But if on the skeptic's view, there is as a matter of fact no difference between these two statements, then the nihilistic assertion would lose all its distinctive character and would be equivalent to the non-skeptic contention. An exponent of the theory of 'Sarvaśūnyatā' will not surely give assent to this conclusion.

By these four arguments Uddyotakara proves conclusively that the skeptical tenet that 'everything is of the nature of nothing' is riddled with self-contradiction and, therefore, the theory of 'Sarvaśūnyatā' or Absolute Nihilism cannot by any means be accepted.

Bhaswati Bhattacharya

NOTES

1. "Sarvam abhāvaḥ bhāveṣu itaretarābhāvasiddheḥ"
— 'Nyāya-Sūtra' 4-1-37
2. "Pratijñāhetvoḥ ca vyāghātaḥ" — vātsyāyana on N. S. 4-1-37
3. "Atha bhāveṣu itaretarābhāvasiddhiḥ? Sarvam abhāvaḥ iti na upapadyate". — Ibid.
4. "Yadi sarvam abhāvaḥ, bhāveṣu itaretarābhāvasiddhiḥ iti na upapadyate". — Ibid.
5. "Anekasya aśeṣatā sarvaśabdasya arthaḥ, bhāva-prati-śedhaḥ ca abhāvaśabdasya arthaḥ", — Ibid.

6. Pūrvam sopākhyam uttaram nirupākhyam, tatra samupākhyāyamānām katham nirupākhyam abhāvaḥ syāt iti, na jātu abhāvaḥ nirupākhyāḥ anekatayā aśeṣatayā śakyāḥ pratijñātum", —Ibid.
7. "Sarvam etat abhāvaḥ iti cet? Yat idam sarvam iti manyase, tat abhāvaḥ iti", —Ibid.
8. "Anekam aśeṣam ca iti na abhāvapratyayena śakyam bhāvitum". —Ibid.
9. "Gauḥ iti prāyujyamāne śabde jātiviśiṣṭam dravyam grhyate na abhāvamātram. Yadi ca sarvam abhāvaḥ, gauḥ iti abhāvāḥ pratiyeta, 'go'—śabdena ca abhāvaḥ ucyeta. Yasmāt tu 'go'—śabda-prayoge dravyaviśeṣāṇ pratīyate na abhāvaḥ tasmāt ayuktaṃ iti". —Vātsyāyana on N. S. 4-1-38
10. "Asan gauḥ aśvātmanā iti gavātmanā kasmāt na ucyate"? —Ibid.
11. "Avacanāt gavātmanā gauḥ asti svābhāvasiddheḥ". —Ibid.
12. "Sarvam abhāvaḥ iti ca vyāvartayasi; na hi asat adhikaraṇam bhavati, adhikaraṇam hi nāma yadi atra Vartate, tat ca abhāve na asti iti"— Uddyotakara : 'Nyāyavārtika' —On N. S. 4-1-37
13. Vide Vācaspati : 'Nyāyavārtikatātparyatikā' —On N. S. 4-1-37
14. "Anityatve tu vināśasvabhāvaḥ cet dvitīyādikṣaṇe iva prathamakṣaṇe api na syuḥ". —Ibid.
15. "Etena arthakriyākāritvam api sattvam pratyuktaṃ, asataḥ arthakriyāyāḥ abhāvāt arthakriyāyām ca satyām tasya sattvāt, arthakriyāyāḥ ca arthakriyāpekṣayā sattvena anavasthāne sarvasya asattvaprasangāt ca" —'Nyāyakandalī' (Udeśaprakaraṇam) : —P. 33 : (Vārānaseya Saṃskṛita Viśvavidyālaya Ed.)
16. "Yat ca parāpekṣam tat na svābhāvikaṃ yathā javākusumasāpekṣam sphatikasya raktatvam iti ākṣepārthaḥ". Vācaspati in 'Nyāyavārtikatātparyatikā' on N. S. 4-1-40
17. "Evam itaretarāśrayayoḥ ekābhāve anyatarābhāvāt ubhayābhāvāḥ iti dīrghāpekṣāvyavasthā anupapannā". —Ibid.
18. "Svābhāvasiddhau asatyām samayoḥ parimaṇḍalayoḥ vā dravyayoḥ āpekṣike dīrghahrasvatve kasmāt na bhavataḥ". —Ibid.
19. "Bhinnatvam ca bhedaḥ sa, ca vastuviśeṣaṇam na utpattau vastvātaram apekṣate kim tu svanirūpaṇe". —Ibid.
20. Vide Uddyotakara : 'Nyāyavārtika' on N. S. 4-1-40.
21. Vide Tarkavāgiśa 'Nyāyādarśana' : Vol. 4 : pp. 203-206.
22. Vide Uddyotakara : Nyāyavārtika on N. S. 4-1-40.

REVIEWS :

J. Feys, *The Philosophy of Evolution in Shri Aurobindo and Teilhard de Chardin*, Calcutta : K. L. MUKHOPADHYAY, 1973, Pp. xviii-276, Price Rs. 35/—.

In this year of the birth-centenary of Shri Aurobindo, his thought has loomed large in the many conferences, seminars, lectures and other celebrations which have commemorated him and his 'integral yoga' promises to be a lasting inspiration to many, both in India and abroad. As to Teilhard de Chardin, while the publication of all his writings proceeds unabate towards its nearing completion and translations in English and many other languages follow it without much delay, the yearly bibliography of all works devoted to their elucidation and popularisation is probably the most abundant of any concerned with writers of this century. Both of them have already been compared with Bergson whose influence is certain on the development of their related thoughts but it remained to confront them with each other and specifically on the theme of evolution which is central in both.

The book under review addresses itself to this task. As a doctoral dissertation it reaches a high standard and may serve as a model to young-researchers in philosophy. Leaving off the too well-trodden highway of facile generalisations, hazy synoptic views and self-satisfying value-judgments rightly deplored by J. N. Mohanty, it follows what he calls "the narrow alleys of the fact-finding, detail-accumulating and concept-analysing sort" [cf. *Seminar*, 25 (1961), p. 23]. As a work of comparative philosophy, it brings to clear light the differences between the two authors, especially the sharp contrast between their respective conceptions of evolution (science-based for Teilhard but yoga-derived for Aurobindo), but it also shows their profound affinity at the deep

level of conscious communion with universal reality. Whereas the conceptual tools of Teilhard are those of any specialist in paleontology and allied disciplines, those of Aurobindo were shaped in a metascientific region of experience, an origin which explains why some philosophers, even of India, fail to accept the explanatory value of 'supra-mental', 'superconscient', 'Supermind' and such like terms. Unlike these rationalist philosophers, Feys grants them that kind of validity which attaches to terms stemming from authentic mysticism while, at the same time, acknowledging with Zaehner that there is sufficient evidence to guarantee the authentic character of Shri Aurobindo's mystical experience as well as of the mystical undercurrent of Teilhard's thought.

After noting first the centrality of evolution in their respective world-views, Feys quickly brings to light a double characteristic common to these two views : for both evolution is not only as for the scientist a fact of the past but an ongoing process with future potentialities which much of their thinking endeavours to reveal; and evolution is a process centred on man, man being the focus of past evolution, its present turning point and even the agent of its future development along the lines either of integral yoga, or beyond the mere biological, of the 'noospheric' self-transcendence which leads to fulfilment at the 'Omega point'.

But in understanding evolution there is a great difference between their views owing to the influence of their philosophies. Shri Aurobindo conceives of it in terms of *parināma* according to the theory of *satkāryavāda* which posits the pre-existence of the effect in the self-evolving cause. Evolution is then a process of 'unfolding' which manifests in temporal succession what was hiddenly comprised or 'involved' in the original causal reality (matter, life, mind, supermind). For Teilhard, on the contrary, evolution is a creative process which brings about novelty, gradual enrichment, in an ascent from simpler to more complex organisms involving a 'within' which at the highest level appears as consci-

ousness properly so called. The teleological factor of this ascent is the attractive force of the divine Omega. Thus evolution is understood within a monotheistic view of reality rather than from a monistic view point as in Aurobindo.

This essential contrast in the very conception of evolution overshadows though it does not overrule the many points of similarity between the two doctrines. While Aurobindo and Teilhard converge in their experience of 'communion with the all' and their feeling for universal unity, they stand poles apart in their teaching regarding man's fulfilment: "Human fulfilment, for Aurobindo, is man becoming God; for Teilhard, it is man coming to God". (p. 258).

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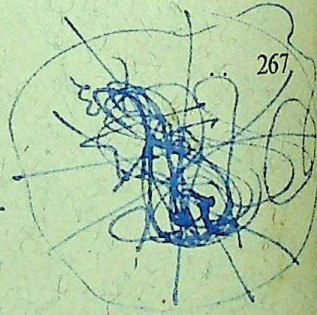
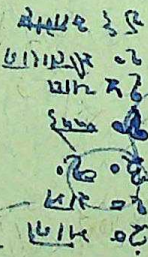
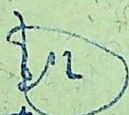
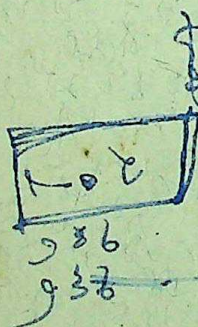


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TYPES OF PHILOSOPHICAL CHANGE

In a very important sense, the study of philosophical change would open doors to our understanding of creativity in Philosophy. All great strides in creative development and understanding result in very far reaching consequences to the structure of philosophical thought. After a creative burst of new ideas and insights, the stream of philosophical thinking is never the same again. Philosophy, unlike the physical and natural sciences, does not possess a definite criterion to judge what is a creative breakthrough. So the problem of judging change and creativity becomes very difficult, due to its controversial nature. A deeply creative insight, when it dawns on the philosophical scene, sheds a new light on old problems and may bring new problems in its wake.

One can broadly distinguish two types of philosophical change—the horizontal and the vertical. The horizontal type of philosophical change is very common and frequent; it involves a dialectical refinement of ideas, attempts at greater systematisation, without questioning the basic ideas that are current. Therefore it is a continuation of the same old structures of thought, though with outward modifications. There is a linear development of dialectical ideas, due to interaction between systems of thought, each system trying to perpetuate itself by attempting to vanquish the others. This is the regular battle ground of academic philosophy where there is a continuous crossfire of criticism. We use *Horizontal* in preference to evolutionary because normally evolution implies progressive development. But in the field of philosophy it is very hard indeed to set up a common agreeable standard of what is philosophical 'progress'. The horizontal variety of change brings in newer attempts to solve old problems on the basis of already existing principles of thought. The vertical type of change is extremely uncommon. It is more an explosion, which disturbs our thinking in a fundamenal way. The term *Mutation* can also be used to designate this type of change, as it

means the birth of a new understanding, insight and movement in philosophy. The vertical movement brings in its wake, new ways of looking, new methods and modes of linguistic expression. This type of changes signifies radically new departures from the past and therefore the 'thought structures' which were relevant in the past, are discarded as irrelevant.

Heractitus lived before Socrates, and is one of the most important ancient Greek philosophers. He propounded the doctrine of flux. There is nothing in this world which is permanent. Everything that comes into existence invariably passes out of it. Fire accorded well with his approach to the world. Fire represents a movement which is constantly renewing itself, and which doesn't have any rest and therefore no trace of permanence. The world is animated by the fire-principle, be it in the higher levels of existence like the living organization or even in inanimate matter. There is a ceaseless transformation of forms and qualities. The apparent impression of permanence that the world process gives us is due to our inability to perceive the imperceptible changes that are silently at work. A moment does not pass by, when change is not. The favourite simile he used was that of a river "We cannot step into the same river twice, for fresh and ever fresh waters are constantly pouring into it." Needless to say, Heractitus' doctrine of flux has remarkable similarity with the discovery of modern physics. It has to be pointed out here, that one does not know clearly what Heractitus thought of the self. Most probably this is due to the fact that very little of his writings have been preserved. Existence is impersonal for Heractitus. What matters is not the private world of opinions and dreams, but the common logos that pervades and regulates the movement of all existence. Perhaps from the above ideas we can glean, that for Heractitus, 'self' as a separate identity is illusory, in this total process of the universe. In Parmenides, we find the pendulum swing to the opposite extreme of asserting that all reality is permanent and whatever is seen as changing is illusory. Here is a definite instance of philosophical change. Heractitus preached that in life all is changing,

whereas Parmenides asserts that whatever is in the field of flux and becoming is unreal and therefore reality of necessity must lie beyond what is in the field of change and therefore the unreal. Parmenides agrees with Heractitus in asserting that there is change. It is only as regards the interpretation of the status of what is given in experience that he vehemently disagrees with him. For Parmenides, being which is permanent and real, is something beyond the ken of our transient sensations and perceptions. It is more a dialectical construct than an experienced fact. The senses cannot perceive it, but reason and intellect can penetrate into its nature. In Heractitus the dominant note of his philosophy is to restrict himself to the confines of what is given in experience, whereas in Parmenides there is a definite attempt and conviction in going beyond what is given in the field of experience. It can be said that the philosophy of Heractitus is more 'descriptive' and that of Parmenides 'interpretative'. The type of change that is involved here is more of a 'reaction' than 'revolutionary'. Parmenides is in possession of a certain criterion as to what is real and unreal, with the help of which he is reacting to what is given in experience. In other words, it is more an imposition of his own set of assumptions and conclusions upon the field of experience, rather than an exploration of the facts of experience. So we can confidently assert that the philosophical change involved here is of the horizontal type where there is a dialectical play of ideas and not a new insight coming into existence.

One observes to what great extent, the view-points of *reality as process* and *reality as substance* have dominated the history of philosophical thought. These two view-points are radically in conflict with each other, struggling to maintain themselves against each other. However, the history of philosophy or for that matter the growth of the physical sciences, witnessed a steady emergence of the philosophy of process and a corresponding decline of the philosophy of 'substance'. This has been achieved by many thinkers in a slow and steady fashion. Metaphysical philosophy does possess a certain immunity in relation to the growth of

scientific knowledge. This explains why we don't easily let go our metaphysical beliefs, prejudices and assumptions, however seriously challenged, they may be from the scientific quarters. The metaphysician of substance is very unlikely to take serious notice of the remarkable discoveries of modern physics, which have come as a serious challenge to the metaphysics of substance. However, in the history of philosophy itself there have been instances of radical change. In the British Empiricist tradition of Locke, Berkeley and Hume we have a clearcut example of how the conflict between process philosophy and substance philosophy has been resolved by the total eclipse of the latter. Locke inaugurated the Empiricist tradition by attacking the theory of innate ideas. The mind is blank until it is fed by the senses, therefore our ideas are a result of our sensations. The external world we know through our senses. The material bodies in the external world have the primary and secondary qualities. The primary is what is essential for an object to be what it is like extension etc. and secondary is what is accidental and therefore not necessary like colour. The secondary qualities inhere in primary qualities; The material bodies in the external world have only primary qualities. But to the question as to in what do the primary qualities inhere, Locke went on to answer that there is 'something one knows not what' in which all the primary qualities are grounded. This 'something' is the 'substance' of the object which performs the important function of supporting it. So 'substance' was conceived more like a foundation of the object than the essence of it. 'Substance' then is something which is not accessible to Empirical determinations but can be logically inferred. It is permanent as it is a ground for all the changes that an object undergoes.

Berkeley's attack on Locke's doctrine of material substance was a very successful one. All that is material can only be known through sensation and whatever is known through the senses, possesses the qualities of extension, rigidity, colour etc. i.e. the primary and secondary qualities. In fact, material objects are always a configuration of the

primary and secondary qualities. We cannot imagine material objects lacking in either of these qualities — Locke's material substance was conceived of as an 'Unknown Something', which was self-contradictory for Berkeley. Because whatever was material could be known through the senses. This 'unknown' 'something' of Locke was not a result of any sense-perception but essentially a product of speculation. Therefore Berkeley's criticism was effective in exposing the unwarranted status of substance.

Both for Locke and Berkeley the notion of substance was relevant in different domains. And as such, they were still confirming what we earlier termed as the substance philosophy. But when we come to Hume we have fresh winds blowing. Hume very clearly perceived the irrelevance of the notion of substance to all that is given in the domain of our experience. Berkeley discarded the notion of substance for the external world of matter, but found it necessary to retain it in the psychological sphere, where self as substance was necessary. But Hume, a ruthless thinker that he was, could not accept it. "For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception. Therefore there is no impression which corresponds to 'self' as substance. To conceive of 'self' as a mental substance in which my various mental states inhere would be unwarranted. What one calls oneself is nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in perpetual flux and movement". In Hume we do find that the empiricist programme of restricting all knowledge to what is given in experience is complete. The philosophical change that has resulted in Hume can be characterised as a very fundamental one because not merely does it sharply break from Locke and Berkeley but represents the beginning of a new understanding in the entire movement of philosophical thought. Hume can be credited with an acute perception of the irrelevance

of the notions of substance and identity to the entire range of domains in the field of experience. It is not merely dialectical skill, but a fresh and new awareness which helped Hume to see the age-old problems in a new light. Though Locke and Berkeley began to sense these new ways of perceiving, they could not possibly escape certain 'structures of thought' which were riveted into their thinking, and Hume was able to achieve this clarity by discarding these "Structures of Thought" as irrelevant. Here is an instance of vertical movement of Philosophical change, because it is an explosion of a new understanding. In modern times, we have Ludwig Wittgenstein who struck at the very fundamental thought processes in philosophy. In Wittgenstein's life-time itself we have two distinct stages — the early and the later. The earlier represented by 'Tractatus' and the later by Philosophical Investigations. The later is a mutation, not merely from his earlier thought but from the whole stream of Western philosophy. In a very deep sense of the term, it is a more fundamental an explosion of philosophical thought than some of the philosophical changes we have examined. This is due to the fact that Wittgenstein began to recognize the role played by language which is an instrument of philosophical thinking. Both in the 'Tractatus' and 'Investigations', he gives primary importance to language. In the 'Tractatus' Wittgenstein is advocating what is popularly known as the 'picture theory of language'. Propositions are more like pictures of what they try to represent. The elements of a proposition are related in the same way as the elements of reality they are trying to represent. Propositions in this sense 'mirror' reality. The structure of propositions is also the structure of reality. The pictorial relation and the representative function a proposition performs is also its meaning. By these ideas Wittgenstein was successful in drawing attention to the fact that the clue to the 'structure of reality' consists in understanding the structure of language.

In the *Investigations* Wittgenstein works out a totally different insight of language and meaning. Here the change

is completely revolutionary, a mutation and therefore not a logical development from the 'Tractatus'. According to Wittgenstein, in the *Investigations* the meaning of a word lies in its use. In the *Tractatus* we find that meaning lies in its pictorial relation, whereas in the '*Investigations*' it is not the pictorial function that is relevant, but what use a particular word or linguistic expression has, that is important. The use of a word is governed by the contexts in which it is being applied. The use a word is put to could vary from one context to another. There is no absolute rule as to the particular use of a word as the rule itself is arbitrary. The word 'good' for example has innumerable uses depending upon the contexts in which it is employed, for example 'good man', 'good food', 'good film', 'good conduct', etc. in all these terms there is no one common idea of good as it has various changing shades of meaning. Again the meaning of the term 'good conduct' is to a large extent determined by the culture, country, religion and moral systems and varies with them. The meaning of the word cannot only be determined by its verbal context, but also by its non-verbal factors that enter into the structure of communication. Like in a talk, wherein the expression of the eyes, the raised pitch of voice, etc. convey a lot of meaning. Sometimes indeed silence proved to be a very effective mode of non-verbal communication. All this points to us the important truth, that the use of language is governed by a vast range of contexts, both verbal and non-verbal, interpenetrating and supplementing each other, thereby helping to perform the functions of ordinary life. In the *Tractatus* the logical structure of language reflected the structure of reality, whereas in the *Investigations* there is no logical structure of language as such; but there are language games which are governed by the larger contexts of ordinary life and in a very important sense integrated with it. In the '*Tractatus*' language is seen as descriptive of the 'structure of reality' whereas in the *Investigations* there is no such thing as the 'structure of reality' to describe, but a range of functions to be performed in a vast range of

contexts which are ever changing. Indeed this approach to language comes as a serious challenge, to the entire structure of linguistic communication.

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METAPHYSICS IN MARXISM

Marxism considers metaphysical thinking as antithetical to dialectical thinking. Therefore it condemns traditional metaphysics and contrasts it to the dialectical mode of thinking founded by Hegel. It is regarded as a merit on Hegel's part to have established a metaphysics of historicity and becoming—in contrast to the traditional metaphysics of unchanging essentials. Having done that the marxists then rejected Hegel's objective idealism for having kept metaphysics alive at all. Marx noted that Hegel wanted to create a metaphysical universal kingdom by restoring metaphysics in a speculative form.¹ He urged that dialectics is not enough and that it should be based on dialectical materialism.

The idealizing abstraction, which leads to the abstract, the non-material, the speculative is assuredly rejected, but in relation to the categories a certain use of abstraction is admitted to be valid. Comparisons have been drawn between Marx and the medieval realists, who believed that concepts exist on their own i.e. independently of phenomena. Some would like to point out for instance that for Marx the concept of value was to an extent the metaphysical substitute for price. Lenin similarly faced the objections of Kantians and exponents of empirico-criticism. The latter maintained that Lenin's thesis of the existence of a material reality outside consciousness was a metaphysical assertion. It is therefore necessary to ask what relationships hold for Marxist philosophy between metaphysics and dialectic and whether the materialist ontology, so far as it forms part of dialectical materialism is not in itself in a certain sense a new metaphysics. Heidegger had suggested that "the nature of materialism does not consist in the claim that everything is merely stuff but rather in a metaphysical definition whereby all existent things appear as the material of work."²

The error of certain opponents of marxism consisted in supposing that the dialectical way of thinking foregoes all

stability and structure. According to Bernstein "This ambiguity however which was so little in keeping with Engels' character, was ultimately rooted in the dialectic taken over from Hegel . . . its interpretation of opposites and transformation of quantity into quality, together with sundry other dialectical elegances continually got in the way of a complete settlement of account as to the import of recognised changes."³ Yet Engels had sufficiently emphasised that if dialectical contradiction did not rest upon fixed elements, it would be nothing. Similarly Marx defined dialectical materialism as distinct both from idealism and materialism, constituting at the same time the unifying truth of both. Yet he wanted to replace metaphysics by materialism "which has been perfected by the work of speculation itself."⁴ An ambivalence is evident. There is within marxism a tension of contrary strands.

Those marxist philosophers who implicitly postulate the metaphysics of materialist ontology do not deny the existence of a relationship between man and nature, but refuse to consider this relation as the fundamental element. For them the fundamental significance is the primacy of matter. Those who have disputed the dialectics of nature and recognised dialectical thinking in the interaction of subject and object, like George Lukacs in '*History and Class Consciousness*' or Henri Lefebvre in '*Dialectical Materialism*' are accused of deviation and revisionism. Here Engels is mainly to be held responsible for this change of outlook. Thus for Marx materialism is the overcoming of alienation through social practice whereas for Engels it is a speculative thesis concerning the ontological primacy of matter. Surely Engels' '*Dialectics of Nature*' is markedly different in tone from Marx's major work '*Capital*'. Lenin had a distaste for the term 'substance' and preferred the word 'matter'. It is no surprise therefore to find contemporary Soviet philosophers crediting matter with those properties which theology employed in describing god. Matter is infinite, eternal, uncreated and finally substance.

In orthodox dogmatic marxist philosophy the importance of metaphysical reflection is so little contested that dialectical materialism itself appears more metaphysical than dialectical. It sets out from the primacy of being over knowing. But to put being before knowing i.e. the object before the subject amounts to giving ontology precedence over dialectic. It could be argued that the intent of uniting materialism with dialectic seems inconsistent. Jean Hyppolite contends that Marxism "can hardly avoid interpreting dialectical materialism — an expression of Marx and Engels which seems to us quite obscure and in a sense even self contradictory — on the model of an unqualified materialism or scientific objectivism."⁵ In other words the attempt to make a natural being dialectical leads to the naturalising of dialectic.

The reasons for this kind of ontologising should also be sought in the marxist theory of knowledge. Marxist philosophy is divided into two major areas: dialectical materialism and historical materialism. The former investigates the laws of becoming of being, the latter the laws of the becoming of societies; for the first being takes precedence over knowledge, for the second social practice takes precedence over the real. In dialectical materialism therefore the object is superior to the subject, in historical materialism the subject to the object. One could say that a true dialectic would arise if dialectical materialism were subordinated to historical materialism. But then one would have to concede to the thesis of Lukacs that the dialectic of nature is a dialectic of the relations between social man and nature. Otherwise the alternative that remains will have to rest on the claim that the historical materialism of practice is nothing more than an extension of ontological materialism. Since everything is matter or perhaps matter-substance and social life merely a particular form of matter, it is necessary to begin with a study of the general laws of matter applying them, then to the social being.

Thus the acceptance of the materialist ontology becomes the necessary precondition for a critique of economic alienation. It would follow that action is subordinate to

being, dialectic to ontology and eventually the dialectical to the metaphysical mode of thinking.

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NOTES

1. Marx and Engels, 'The Holy Family', *Selected Works*, Progress Publishers, Moscow, 1968, p. 168.
2. In "*Marxism, Communism and Western Society: A Comparative Encyclopaedia*," Edited by C. D. Kering, Herder and Herder, 1973, p. 423.
3. "*Evolutionary Socialism: A Criticism and Affirmation*", Free Press, New York, 1961, p. 57.
4. "*The Holy Family*", p. 172.
5. "*Studies in Marx and Hegel*", NLB, London, 1971, p. 96.

THE VISION OF TRUTH IN HEIDEGGER AND UPANIṢADS

Truth for Heidegger is inseparably connected with Being i.e., reality. The original meaning of 'truth' has become obsolete in the course of history of philosophy. Heidegger traces the meaning of 'truth' in the Greek word $\alpha\lambda\eta\theta\epsilon\iota\alpha$ (aletheia) which means unhidden, unconcealed. Initially the 'truth' for men is in a hiding place from where it must be uncovered or unveiled. Heidegger is not concerned with the domains of particular truth i.e., either economic or political or scientific or philosophical and so on. He is of the view that the essential question disregards all this and fixes attention on the 'truth' "that is the mark of 'truth' of every kind".¹ For Heidegger "The true is the Real".² The truth of judgments is of secondary order. Judgments refer to something prior to them i.e., Being. So the primary meaning of truth is the truth of Being that which is referred to by the judgments. The analysis of truth by Heidegger presupposes that it must be related to reality. Without relating it to reality one indulges in an abstract enquiry into the nature of 'truth' which is of no use. Thus we find from the very outset that Heidegger's analysis of 'truth' is in relation to Being which is the subject matter of his major work '*Being and Time*' (Sein and Zeit). Heidegger is primarily concerned with ontological truth and not with the formal truth conceived as the property of propositions in modern logic. Heidegger is well known for his technique of tracing the meaning of words to their roots and in this case too he traces the meaning in the Greek word 'aletheia' which means 'truth' is essentially in a hiding place; it is covered under a veil. To know what is truth we have to uncover it, reveal it.

Heidegger, while analysing the notion of 'truth', first considers the conventional concept of truth according to which being true and truth means correspondence i.e.,

- (a) "correspondence of a thing with the idea of it as conceived in advance".³

- (b) "correspondence of that which is intended by the statement with the thing itself".⁴

Heidegger observes that the traditional definition of truth as *veritas est adaequatio rei et intellectus* approximation of a thing to perception is unsatisfactory. This can also mean truth is approximation of perception to a thing. Propositional truth is only possible on the basis of objective truth if we do not take the meaning of truth as 'formal truth' in modern logic. Further analysis raises a doubt that no statement can exactly approximate to a thing. Statements and things are different types. Heidegger maintains that propositional truth depends upon objective truth and a proposition rights itself on the basis of objective truth. Heidegger asks: what is that which manifests itself as such and by which a representative statement rights itself? The rightness of representative statement depends on something which manifests itself just as it is. The first possibility admitted by Heidegger and which is an important one is that What-is (Was-ist) can express itself as such.

"What-is can expressly take up its stand 'as' and 'how' it is, 'what' it is, and thus become capable of expression. This can only occur when What-is represents itself (*selbst vorstellig wird*) with the representative statement, so that the statement submits to a directive enjoining it to express what-is 'such as' or just as it is. By following this directive the statement 'rights itself' (*sich richtet nach*) by what-is. Directing itself in this way the statement is right (true). And what is thus stated is rightness (truth)."⁵

Heidegger then emphasizes that if rightness of a statement is made possible by the overt character of behaviour—in which a thing makes a move towards us as what it is—then the thing that makes rightness possible must have a more original claim to be taken as the essence of truth.

"Thus the traditional practice of attributing truth exclusively to the statement as its sole and essential place of origin, falls to the ground. Truth does not possess its original seat in the proposition."⁶

Next we come to the problem; why does the accord between object and statement determine the nature of truth and what is the inner possibility of such an accord? The reason being, according to Heidegger, that the above postulate has freed itself and become open to a manifestation operating in openness which is binding on all representations. Further we come across the notion of freedom to reveal something overt. For Heidegger 'essence of truth' is freedom about which he has something significant to say.

"Freedom was initially defined as freedom for revelation of something already overt. The manifest (das Offenbare), to which a representative statement approximates in its rightness, is that which obviously 'is' all the time and has some manifest form of behaviour. The freedom to reveal something overt lets whatever 'is' at the moment be what it is. Freedom reveals itself as the 'letting-be' of what-is."⁷

The phrase 'letting-be' does not mean here an attitude of indifference and neglect. What is 'to-let what-is be' in the language of Heidegger? He means thereby "participating in something overt and its overtness, in which everything that 'is' takes up its position and which entails such overtness."⁸

"Participation in the revealed nature of what-is does not stop there, it develops.... so that what-is may reveal itself as what and how it is. In this manner 'letting-be' exposes itself (setzt sich aus) to what-is-as-such and brings all behaviour into the open (ver-setzt ins offene). Freedom is a participation in the revealment of what-is-as-such (das seiende als ein solches)."⁹

Here it seems Heidegger has made an advance on Kant's theory of things-in-themselves (Ding-an-sich) which can never be known as they are. Heidegger is including in his interpretation of truth the knowledge of what-is-as-such i.e. reality as such. Heidegger follows the phenomenology of Husserl but at the same time disagrees with him in some respects and is not at all in agreement with the bracketing of

the world and maintains that the phenomenon shows itself as it is by itself. Here one can label Heidegger a realist but Heidegger is, however, of the opinion that it is better to avoid thinking in terms of 'realism' or 'idealism'. Freedom so understood fulfils the nature of truth as the unconcealment and revelation of what-is. Truth is not mark of some correct proposition, it is on the other hand revelation of what-is (Was-ist) in which something 'overt' comes into force.

The essence of truth being freedom so the historical man, according to Heidegger, who lets what-is be, cannot sometimes really let what-is be as it is or let us say the historical man many times does not let what-is be as it is.

"What-is is then covered up and distorted. Illusion comes into its own. The essential negation of truth, its 'dis-essence' (Unwesen) makes its appearance."¹⁰

In freedom, Heidegger includes both letting-be of what-is and at the same time not letting-be of what-is as it is. It may seem to be contradictory but it is not so and a little reflection will remove the doubt about it, since in freedom one is free and may let-be and may not let-be what-is as it is. What is more interesting and puzzling is the fact that freedom which is regarded as the essence of truth is not the property of man; on the contrary man exists as a property of this freedom, so he regards that dis-essence of truth cannot arise from mere negligence of man.

"On the contrary, untruth must derive from the essence of truth. Only because truth and untruth are not in essence indifferent to one another, can a true proposition contrast so sharply with its correspondingly untrue proposition."¹¹

Freedom has attuned (abgestimmt) all behaviour in the revealment of what-is-in-totality. Man's behaviour for Heidegger is attuned to the manifest character of what-is-in-totality which appears as something incomprehensible. This attunement or mood 'can only be felt' by man because while participating in this mood he has no distinct ideas of the nature of the mood. Totality can not be understood in

terms of what manifestly 'is'. Heidegger maintains that what-is-in-totality is concealed by 'letting-be' and concealment is anterior to all revelation of this or that actuality i.e. to the 'letting-be' of what-is. Dissimulation of what-is-as-such is a mystery which pervades the whole of Man's Da-sein. The meaning of dis-essence is not anti-essence, it means pre-essence which precedes essence. Man is all the time related to what-is (Was-ist). Mystery leaves the historical man to the realm of practicable. In this abandoned state he builds up his own world with projects and falls into error. In such a state man regards himself as the measure of all things. In this way 'his Da-sein not only ex-sists but in-sists'.¹² Mystery also remains in in-sistent existence i.e. the existence in which man lives in the projection of his own world. The in-sistent and ex-sistent aspects of Da-sein go together. Turning from mystery to the practicable is erring (das irren).

It is very much interesting and at the same time puzzling that in his exposition of truth Heidegger includes both its essence and dis-essence. The language philosophers will immediately object at this point and would firmly declare that Heidegger is misusing language. But we can solve this puzzle by pointing out that Heidegger is analysing truth in a different order i.e. truth as related to reality in totality. For Heidegger 'total truth' is incomprehensible and therefore, includes in its meaning the essence as well as dis-essence i.e. untruth. What we discover is the partial truth i.e. truth which reveals to us as it is. The following lines of the philosopher would help in clarifying the enigma.

"The total essence of truth, which contains in its own self its 'dis-essence', keeps Da-sein ever turning this way and that but always into mystery. The revelation of what-is-as-such is at the same time the concealment of what-is-in-totality. In this simultaneity of revealing and concealing error has sway. The dissimulation of the dissimulated and error, belong to the original essence of truth."¹³

This implies that one can never have a grip on Being as it conceals while it reveals that is never reveals completely. Heidegger is of the view that the problem of truth was faced for the first time by early Greek thinkers who asked the question: what is that which is as such in totality? This question marked the beginning of history of philosophy and Metaphysics. To ask such a question the thinker has to withdraw from phenomenal experience and ascend into the light of Being. This is best explained in the 'allegory of the cave' described by Plato in his dialogues.

For Heidegger, the question of the essence of truth is a question of the truth of essence. "Philosophy, however, conceives 'essence' as Being".¹⁴ This means the question of the essence of truth is the question of truth of Being. To sum up the position of Heidegger: truth consists in the uncovering and bringing into the open that which is and as it is; it can not be separated from the idea of Being; it is wrong to look for truth in judgments which refer to something prior to themselves that is Being; it is initially in a hiding place from whence it must be brought in open; it never reveals completely and contains untruth as its dis-essence since what-is-in-totality is comprehensible.

To throw a little more light on truth as conceived by Heidegger we can compare it with Kierkegaard's concept of truth. For Kierkegaard God-man Christ is the Truth which comes to us as a scandal, as a paradox, that is, an Infinite in finite form. According to the Kierkegaardian doctrine of 'how' it is not 'what' that constitutes the truth but the subjective attitude towards the 'what', that is, the intensity with which one seeks after Jesus the Being. In Kierkegaard man is placed at once in the domain of truth and falsehood since it is in guilt that man can advance to the religious sphere which is the domain of truth. Truth initially appears as subjectivity but is necessarily related to truth as objectivity, that is, Being which is so conceived in subjectivity. In Heidegger we find truth as truth objectivity. But Heidegger's theory is not opposed to Kierkegaard's as it seems. In Heidegger too we can come to the idea of Being through

Da-sein through existence.¹⁵ In both we find a union of truth-subjectivity and truth-objectivity, one emphasizing on subjectivity and another on objectivity.

It would not be out of place to mention that truth in Upaniṣadic thought has been related to Being i.e., Brahman and has been conceived in many places as covered by a golden veil.

"The face of truth is covered with a golden disc. Unveil it, O Pūṣan, so that I who love the truth may see it."¹⁶

Thus we find identical views for the Greek word of truth and truth as conceived in Upaniṣadic thought. In Muṇḍaka Upaniṣad we find a similar indication.

"In the highest golden sheath is Brahman without stain, without parts; Pure is it, the light of lights. That is what the knowers of Self know."¹⁷

In Upaniṣadic system of Indian thought too, truth is initially hidden and that which remains uncontradicted. If we can contradict something then it is no more a truth. In the Vedānta system of thought the various theories of truth i.e. correspondence theory, coherence theory and pragmatic theory are inadequate as the mark of real truth. This has been well pointed out by Swami Akhilananda in '*Hindu Psychology — its meaning for the West*'. Regarding the pragmatic theory of truth he says that a certain principle may serve as true for some practical purposes and yet it may be false, as for example, for sometime the principle that the Sun revolves round the Earth served well for practical purposes of calculations but later on was discovered as false.¹⁸ So the mark of real truth in Vedānta is self-evidence, that is truth is that which excludes the possibility of contradiction. And such an entity is Brahman, revealed at the time of spiritual realization in all its self-luminosity. In Upaniṣadic thought Brahman alone is true. Does it also contain untruth as its dis-essence? Like Heidegger's Being, the Brahman of Upaniṣads conceals while it reveals i.e. it does not reveal itself completely. Brahman manifests itself in different states i.e. dream life, waking life, deep sleep

and turiya state. All stages are the manifestations of one Real. But the knowers of Brahman claim that one can never fully discover what it is. They claim the reality of one Being manifesting itself in multiplicity but what-is-it-in-totality they can never grasp. It is indeterminate (nirguṇa) as well as determinate (saguṇa). For the indeterminate aspect of truth we can never say what it is in particular. It manifests itself and at the same time is beyond all manifestations i.e. immanent as well as transcendent, the inner controller (Antaryāmin) of all that there is, yet beyond. So it is a mystery. The mystery of Being is claimed to be known by religious thinkers, mystics and metaphysicians, yet at the same time they say that it is incomprehensible. What it can mean is that they can know something about such a mystery but not completely. The mystics claim that they can have union with such a Being or Reality. Being alone is truth, the rest is meaningless. All aim of life is to possess such truth and ultimately become that truth. The truth then becomes a thing of value and worth attaining.

In the analysis of truth we have found that truth is initially concealed and at the same time truth is that which cannot be denied or contradicted. In this way we can include the propositions of pure mathematics but then it would be a 'formal truth' and not real truth which is the object of search for Heidegger. It is evident that from the beginning we are using the word 'truth' in a special sense and in this usage we have found that truth is the manifestation of What-is as such and at the same time it is dissimulation of the dissimulated since what-is-in-totality is incomprehensible. We are only in the known realm of partial truth or relative truth. And it does not imply that there is no such concept as total truth, that is why we say that we are on the road towards truth.

Some one may question: what is the point in comparing Heidegger, a twentieth century philosopher with Upaniṣadic thought which is the philosophy of a very early and remote time? The reason is simple: Heidegger is a philosopher of Being and brings to new life the age-old problem of Being which has roots in early Greek thought

of Western philosophy. Heidegger takes much interest in pre-Socratic philosophy and disregards the later period as insignificant in the development of what he considers authentic philosophy. So we find that Heidegger goes back in time to early Greek thought and certainly the upaniṣadic thought is as old as the early Greek thought if not earlier. The objection to comparing the philosophies of different times is not valid. Heidegger refuses to be called an existentialist; for him the basic problem of philosophy is that of Being, the problem par excellence of the early Greek thinkers and poets. The time factor is therefore not a hindrance in our study of the problem of truth of Being. Some one may again raise an objection: what is the purpose of comparing the philosophies of different origins? Against this we simply point out that it is an attempt to think together the two seemingly divergent strains of thought. Heidegger in his book *'What is called thinking'* says, "what is most thought-provoking in our thought-provoking time is that we are still not thinking."¹⁹ We go a step further and say that what is most thought-provoking in our thought-provoking century is that it is not really provoking thought to think together the historical dichotomies and transcend the limitations of the historical perspective.

While discussing the conventional concept of truth i.e. correspondence theory of truth we observed that Heidegger is not opposed to it. He only clarifies that no propositional truth is possible only on the basis of objective truth. Here we may analyse more clearly: what does objective truth mean? Is this world not an objective truth? Heidegger agrees that world as it manifests itself is an objective phenomenon and expresses itself as it is. There is no reason to believe that it is an appearance. Upaniṣadic thought also does not deny the reality of world as it is but at the same time it seeks to go beyond what-is. 'What-is' which is the subject of study of science, expresses itself as it is. Like Husserl, Heidegger also follows the method of phenomenology but he does not bracket the world; on the contrary he is of the opinion that 'what-is' can express itself as it is. In upaniṣadic thought the correspondence theory works only

in a particular realm. Correspondence may mean correspondence with the dream realm (Pratibhāsika sattā) or illusory state correspondence with waking life Vyavahārika sattā) or correspondence with ultimate reality in spiritual realisation (Turiya avasthā). Even if we consider the Coherence theory of truth we have to make it clear that with what realm we are seeking coherence. The reality of waking life (Vyavahārika sattā) is not denied in upaniṣadic thought like Heidegger; on the other hand what it seeks further is the ground of all that there is.

In seeking for the ground of all that there is Upaniṣadic thought postulates 'Brahman' as the ground of all that there is. Heidegger too is anxious to know what is the ground of all that there is i.e. Being of the beings. Heidegger does not deny the existence of world as it is; Vedāntins too accept the reality of world as it is. Even Śaṅkara who dismisses this world as 'mithyā' or illusory does so in view of what is really real. Śaṅkara seeks the ground of all-that-is. Now that he finds in the scriptures 'Brahman' as the ultimate ground he regards the world as only relatively real. The ground of all-that-there-is is of utmost importance. Both Heidegger and Upaniṣads endeavour to seek the ground of all-that-there-is. Heidegger conceives the ground in 'nothingness' as the Being of entities. In the mood of dread we encounter things in the background of 'nothingness'. The dread is always the dread of 'nothingness', the background in which things go on slipping from the ground, sliding as if 'nothingness' is the Being of entities or the ground of entities. In upaniṣadic thought, the ground of all is Brahman. The category of 'Brahman' in Indian thought and Being in Heidegger is a strange one. No positive description has been given for this category. In both we can not have a grip on Being or Brahman. Both are beyond any categorisation. No categorisation is possible for the strange category which eludes any positive comprehension, yet it is the ground of all-that-there-is.

It is no wonder if we say that Being is 'nothingness'. 'Nothing' appears to be the most appropriate word for such a strange category. Even upaniṣadic thought can take the

side that 'Being' is 'nothing' in its indeterminate stage i.e. no-thing in particular yet ground of all-that-there-is. It is all and 'nothing' at the same time; a strange statement about a strange category. We call it 'nothing' since the intellect is unable to call it any determinate thing. Heidegger and Upaniṣadic thought in our opinion do not deny the reality of external world as it expresses itself. Both come under the label of 'realism' yet both go beyond and seek the ground of all that there is. The discovered ground is the Being of all-that-there-is, so the most real of all categories or realms is the ground of all-that-there is.

In the course of analysis of truth as envisaged by Heidegger and upaniṣadic thought, we come to the position that Being or Brahman alone is truth i.e. ground of all-that-there-is. At the same time it is not possible to know it completely as it conceals while it reveals. Heidegger has left the problem of Being unsolved as has been done hitherto by previous thinkers i.e. religious thinkers, mystics and metaphysicians. The mystery of Being remains unsolved. It does not mean that no progress has been made in its illumination and that we have not gained any insight about Being. It only indicates philosophical helplessness in its metaphysicians. The mystery of Being remains unsolved. However, as the poet who names the holy and glorified the philosopher as the shepherd of Being who lives in the vicinity of Being.

On going through all the above one may think that the question of Being or truth is meaningless and helps not in solving any problem relevant to life. At the same time one can not avoid the interior urge which impels us to know the ground of all-that-there-is. If our attempt to know the ground of what-is-as-such-in-totality is 'useless' then of course our intellectual achievement makes no sense. But the question is still as fresh as it ever was. Man is again confronted with the age-old problem of Being though he is fully aware that the last word on Being can not be said. Filled with mystery and wonder he will always find him-

self only on the way to Being, atmost in its vicinity and never in its complete possession.

Delhi

Ved Prakash Gaur

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2. ET 321.
3. ET 322.
4. ET 322.
5. ET 329.
6. ET 329.
7. ET 333.
8. ET 333
9. ET 334.
10. ET 337.
11. ET 337.
12. Heidegger is using the words, 'ex-sist' and 'in-sist' in a special sense. Ex-sist means to 'stand out from' (L. ex-sistere) or transcend or project in future. In-sist means 'standing in' (L. in-sistere) i.e. living in one's own private world, not projecting out in future. For Heidegger among beings man alone exists but at the same time holds that Da-sein (literally 'being there' i.e. Man) ex-sists as well as in-sists. In insistence existence it falls into error.
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ASRAMA-DHARMA AND THE ETHICS OF SELF-ACTUALIZATION

Āsrama-dharma is intended to nurture the individual for the realization of the highest goal of life which is conceived as Self-realization. The self that is sought to be realized is the innermost essence of man, his Spirit, which is essentially infinite, indicated by the term Brahman. I endeavour to study this theory in the light of a critical account of Abraham H. Maslow's theory of self-actualization according to which man's goal is the actualization of his own self, i. e., his talents, capacities, and potentialities. The description of self-actualization ethics and its application to the four stages of life as worked out by David L. Norton is also made use of.

I

What exactly does self-actualization mean? Man's motivational life is studied in order to arrive at the possible ends of human behaviour. The gratification of physiological and psychological needs and desires is at the bottom of man's behaviour. They are arranged in an hierarchy of priority and prepotency. The need for food is prepotent over the need for safety, love and esteem. The gratification of all these needs still leaves a man restless and discontent unless he be doing that for which he is most fitted "What a man *can* be, he *must* be".¹ This need is called self-actualization. When the lower needs are satisfied, at once new and higher desires emerge and they dominate the consciousness. These needs are basic to the individual; their gratification is necessary for the healthy growth and expression of his personality; their thwarting leads to psychopathological conditions.

Self-actualization specifically means man's desire to become actualized in what he is potentially. It refers to his tendency to become what he is capable of becoming. It is not only an end state but also the process of actualizing one's potentialities at any time, in any amount. The transient moments of self-actualization are called 'peak experiences'.

It is a characteristic of the self-actualizing people that they

are devoted to some task, vocation or work, to some cause 'outside of themselves'. One may be devoted to law, another to justice, another to truth, beauty or goodness. At this level, the dichotomy between work and joy, duty and pleasure is resolved; he is said to be 'autonomous'. The cause to which one is devoted is spoken of as 'natural', as something for which one is suited and born. These causes are regarded as the values of being (B-values), the ultimate values which are intrinsic, i. e., ends in themselves. These values, it is said, behave like needs. They are, therefore, called *metaneeds*. The motivations resulting from these needs are said to be *metamotivations*. The intrinsic values are conceived as part of human nature. But they are not 'natural' to him in the same sense that intrinsic values are inherent and innate to his nature. Man has a capacity or potentiality to devote himself to a cause or task which is objective and external to him. Can a man devote himself to a value which is outside himself and which is not inherent to his nature? Can an external value, however higher, act as a motivation?

It is difficult to understand the selfless and passionate dedication of a man to a value which is outside himself, which is not innate to his nature and constitution. If the intrinsic values behave like needs, it can only be because they are inherent to one's own nature. Something which is outside oneself cannot be regarded 'natural' to him. The devotion to intrinsic values cannot be the growth and expression of one's own personality unless they are innate in him. For, the end cannot be something external. The so-called intrinsic values turn out to be only means for the realization of something higher in value, but not alien to one's own being. Maslow himself admits that "the existence of these B-values adds a whole set of complications to the structure of self-actualization."² He further says: "I would go so far as to claim that these B-values are the meaning of life for most people, but many people do not even recognise that they have these meta-needs"³. To possess a certain meta-need potentially and not to perceive it is a contradiction. It would be a more plausible solution of the matter to say that meta-needs are inherent to man's nature, and that they are clouded by preoccupation with the gratification of the lower needs and desires. One has only to uncover the outer sheath in order to realize the higher and real self within. Self-restraint and control are naturally the way to do it and not gratification of lower needs and desires. Maslow

himself alludes to self-restraint and control as possible means to self-actualization besides basic need gratification.⁴ He also recognises that unbridled indulgence and gratification have their own dangerous consequences.⁵

It is recognised by David L. Norton that the intrinsic values or excellences are innate potentials. Self-actualization consists in rendering explicit what one implicitly is. The ideal perfection (*daimon*) of a person is unique, individual, and self-identical; it is within him; it manifests as objective value in one's endeavour to live in truth to it. Norton says: "One's *daimon* is a normative potential to individuated character and is inborn, subsisting from birth as innate potentiality"⁶. According to self-actualization ethics one has to first discover the *daimon* within him and then endeavour to live in accordance with it. One's *daimon* is within the boundaries of his finitude.

Self-actualizing persons exhibit a great deal of self-discipline. Maslow is at great pains to account for it. He admits: "We know they *are* that way, but not how they *get* that way".⁷ He attributes it to the controls or limits imposed on one's basic need gratification by the fact that other persons also seek their basic need gratification. This cannot account for the fact of voluntary self-control and limitation. It may be contended that self-discipline observable among self-actualizing people is itself the result of controlled basic need gratification and not unbridled indulgence in them. To put in the words of David L. Norton: "Through long exercise of self-discipline the integrity of the mature person possesses the tensile strength of moral necessity, the inner imperative 'I must'".⁸ Self-restraint is possible because of man's innate moral nature, his virtuous disposition and essential goodness.

II

Āsrama-dharma is based on the recognition of the fact that a single set of normative principles does not apply to the whole of life. Life has to be necessarily conceived in stages of personal development and realization of values. According to self-actualization ethics personal development consists in the progressive actualization of one's innate potentialities. Āsrama-dharma conceives of the process of self-actualization in terms of values in four stages of personal development. The concept of *purushārthas*

(human values) which underlies the āśrama scheme of life recognises four goals or values of human endeavour, viz., *dharma* (righteousness and religiousness), *artha* (economic values), *kāma* (satisfaction of emotional and artistic impulses), and *moksha* (liberation or freedom of the spirit) to be actualized or realized. All these integrally imply the actualization or realization of the self.

In the first stage of *brahmacarya* (studentship), the dominant end and organizing principle of life is the acquisition of knowledge. This necessitates conscious control of sexual, emotional, and artistic impulses on the part of the student. One has to channelize all his energy for the acquisition of knowledge. It is the obligation of a student to acquire knowledge and wisdom. One has to cultivate the principles of self-regulation. The ultimate regulatory principle of life, viz., the ultimate truth of his own being, is to be kept in the forefront of his conscious studies and endeavours. He may even discover it in moments of meditations of self-transcendence. The ultimate truth is not something to be actualized at the end of one's life. The process of learning and study, virtuous conduct and meditation is a life long process; it is common to all the four āśramas. What is significant of the first āśrama is that the student is mainly devoted to the actualization of his desire to know and to understand.

The second stage of *grihastha* (householder) occupies a pivotal position in the social order. It is conceived as the source and support of all other stages of life. The fundamental aim of this āśrama is the shaping of an individual into a good citizen. The family forms the bedrock of society. The perpetuation of family and its traditions and through it of race is the new task that one assumes in this stage. All the interests and activities are regulated to serve this primary task. At this level the individual enters into a greater relationship with society or community through the family. And so, besides the individual responsibilities and actualizations of desires and instincts, he has greater social responsibilities to fulfil and social personality to actualize. The householder pursues occupations suitable to his inner nature and temperament (*svabhāva*) which is conducive to the growth and expression of his personality, i. e., for his self-actualization. He continues to acquire knowledge in the practical sphere of life with an eye on the realization of the most universal truth at the background of the practical life.

For effective realization, he feels it necessary to free himself from the narrow family bonds, and enters into a more free state of contemplation called *vānaprastha* and *sainnyāsa*. These two stages are marked by freedom from attachment to worldly objects leading to the blissful state of Being which is the peak of self-realization or freedom in life.

It is to be seen from the above account that the meaning of interests and activities undergoes transformation in each stage of life; they are not abandoned at stage-exchange. The four stages of life are integrally conceived and present as the moral and spiritual development of man towards his ultimate destiny.

III

To sum up: Self-actualization, according to Maslow, consists in actualizing one's potentialities for higher values which are objective and external. Norton conceives of self-actualization as the discovery of one's own self and living in truth to it. One's own self is ideal perfection (*daimon*) and is within the limits of his finitude; it manifests as objective value in one's endeavour to live in accordance with it. Āśrama-dharma conceives of the self to be actualized as the innermost essence of man which is infinite.

The gratification of basic needs is a prior condition for the actualization of higher values according to Maslow. He does not rule out self-control as a means to self-actualization. For Norton the discovery of ideal perfection precedes its actualization and the way to it is self-discipline leading to moral necessity. According to Āśrama-dharma, self-knowledge is prior to its actualization and the means to it lies in cultivating moral and spiritual excellences.

Self-actualization ethics is an attempt at explaining human values in terms of man's finite, empirical experience. Āśrama-dharma explains human values in terms of man's ultimate truth which is infinite and all-inclusive. Āśrama-dharma, structured as it is under the intuitions of the real as the spiritual infinite, orients itself not only to the realization of the spiritual infinite, but also to illumining the whole of empirical life by giving value to each and every stage of human existence. Whereas in the self-actualization theories the progress is calculated in terms of many peak experiences, in the scheme of āśrama-dharma each peak experience leads to the

highest of the peak experiences, viz., the actualization of the spiritual infinite which is the fulfillment of all endeavour and value.

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3. Ibid., P. 281.
4. Maslow, A. H., *Motivation and Personality*, P. 107.
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6. Norton, David L., *Personal Destinies*, P. 21.
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8. Norton, David L., *Personal Destinies*, Preface xi.

M. N. ROY'S EXPOSITION OF MARXIAN PHILOSOPHY

Radical Humanism which Roy has proposed in his Humanist phase has evidence to Marxian effect on him as far as he has thought upon Marxism during his Marxist phase. He rejected some of its postulates on the basis of the modern scientific knowledge. But Roy never said that he has denied it, but he wants to revise it in the light of modern scientific knowledge. He also never rejected that it is not a philosophy which is not scientific. Elsewhere he expressed his views on Marxism when he was a Marxist who wrote :

....the scientific mode of thoughtis the very foundation of MarxismMarxism became the philosophy of revolution, the philosophy of the future of humanity. Marxism is Realism. It is a Rationalist approach to everything. It is the rejection of all faith, even in Marxism. If we are true Marxists, we must have the courage to submit every single sentence written, even by Marx himself to a scrutiny in the light of the discoveries of modern science made since then.¹

In his Marxist phase, Roy says that Marxism, essentially, is a philosophy. But it is distinguished, he points out, from other philosophies in as much as it is not a closed system of thought. It is a philosophy but not a body of doctrines. It is not a bunch of dogmas, but it is a method. Roy did not agree with the view that Marxism is only the economic interpretation of history. He says that it was only a vulgar interpretation. Marxian interpretation of history is not economic in the narrow sense. It is also a materialistic interpretation of history. But materialism is not only the cult of bread and butter. It includes all economic theories, political doctrines and a programme of political action.

Marxism, is, therefore, a philosophy of life. As a philosophy of life, it must include every department of human activity. Appreciating Marxian interpretation of economics and history in the materialistic way, Roy wrote :

The philosophy which is called Marxism is a materialistic philosophy. But Marxian Materialism is different from

what is commonly known as Materialism. To begin with, we must know one thing, namely, that what is called Marxism is not a revealed wisdom. The teachings of Karl Marx are not products of the mind of one individual. The historical significance and value of the teachings of Karl Marx is to be found in the fact that they are a coordination, a systematisation and a clear scientific presentation of the entire product of human thought and human activity during the three or four hundred years which preceded the time of Karl Marx.²

In his Marxist phase Roy strongly believes that Marxism is primarily and essentially a philosophy of real human life. Marx according to him, stressed mainly on philosophical problems in his early writings. They have laid down the fundamental principles which guided Marx's subsequent researches into history, economics and the allied subjects. Roy, therefore, remarks :

Marxism is a logical system of thought, and a method of approach to all the variegated problems of human existence. There is no contradiction between its 'practical' and its 'naturalistic' aspects³.

Roy points out that man has begun to peep into the mysteries of the nature and himself only after 16th and 17th centuries because the renaissance philosophers helped a lot to liberate man from the bondage of religious dogmas. It was the beginning of the modern science. According to Roy modern science has enabled man to dispense with the assumption of supernatural causes. Natural science, particularly physics, enabled man to explain in physical terms many phenomena which had been ascribed to supernatural, metaphysical, forces until then. This development culminated in a system of philosophy which could dispense with the entire paraphernalia of metaphysical assumptions and mystic pre-suppositions. Hence, in this context, Roy points out :

The philosophy known as Marxian is the logical outcome of the scientific mode of thought⁴

In his Marxist phase, Roy thus believes that Marxism is the only philosophy. According to him it belongs not only to the particular class but also to the entire world. Thus it is universal in nature. It is storehouse of human knowledge since the dawn

of civilization. Elucidating the the importance of Marxism, Roy elsewhere remarks :

I appreciated Marxism as something greater than the ideology of a class. I understood it as the positive outcome of earlier intellectual efforts to evolve a philosophy which could harmonise the processes of physical nature, social evolution and the will and emotions of individual man⁵

Roy has found and understood that Marx was a real Humanist and above all he was a defender and lover of individual freedom. Roy says that Marx talked of socialism as "the kingdom of freedom" where man will be the master of his social environment, where human reason will overcome irrational forces which now tyrannise the life of man.⁶ Appreciating still the Marxian principles of Humanism Roy declared :

Freed from the fallacy of economic determinism, the Humanist, libertarian, moralist spirit of Marxism will go into the making of a new faith of our time. It is a part of the accumulated store of human heritage which must be claimed by the builders of the future⁷.

The earlier life of Roy was that of a revolutionary with full of aspirations and hopes. But in his later period he separated himself from it with despair and frustration. Even in the national and international political fields, he has differed with some of the top communist leaders. Meanwhile, the mistakes in the philosophy of Marxism and its relevance to practical life had been shown during the war periods. Above all, some of the most important leaders of communism had an occasion to rethink and revise the real importance of Marxian principles. Even in this situation, Roy did not give up Marxism. Leaving aside some of the defects of Marxism as noted by Roy, he was the most dedicated supporter of Marxism who said :

Marxism revolutionises philosophy itself. It sets new tasks to philosophy; previously philosophy has simply tried to explain the world, but in future it must point out the way to a reconstruction of the world⁸.

Roy has believed Marxism almost as a religion and has full confidence that Marxism was a practical philosophy. He also believed fully that Marxism can be used as a method to set

new conditions and ideas which will be able to open a new vista of vision for building a rational society in which man will live happily according to his ability and necessity. He admired Marxism to such an extent that he was prepared to place it independent of time. According to him, knowledge is a great force in shaping history. In this mood Roy enthusiastically remarks that the Marxian definition of philosophy is not arbitrary. There is reason for the change in the fundamental principles of philosophy. The growth of knowledge introduced that change Man's consciousness is determined by the physical and social environments in which he lives. Therefore, man's knowledge and its scope increases in proportion, as his power to dominate the physical environments grows. Knowledge is power once man knows how a thing is constructed, the knowledge gives him the power to reconstruct the thing.... Marxism says that our mental equipment results from our being, which includes our experience. Once we appreciate Marxism in this way, it becomes evident that it is not limited by time.⁹

In his Marxist phase, Roy accepts Marxism almost as our creed. Roy, therefore, points out that 'we can go and investigate into the existing primitive societies or read the history of the world, and in either case, apply this fundamental principle of Marxism as our 'creed'. As a matter of fact, Marxism has thrown a completely different light on entire human history. Many events of history now appear in an entirely different complexion. That is the intellectual application of Marxism.¹⁰

Accepting strongly that Marxism is a different kind of Philosophy to explain the things in a proper way, Roy points out that we have certain fundamental principles which could explain the entire existence in its various departments. Roy therefore, says that Marxism is not limited only to philosophy, but it stretches out all the other branches of human activity such as economics, history, politics and so on and so forth. Roy accepts the truth that man can give an explanation of the universe because man has a hand in the creation of the universe. He also agrees with Marx that the object of philosophy is not to interpret the world, but to remake the world. Roy points out that if we think that we can remake the world as it is today, it logically follows that some other man, not in terms of god, before us has made the world as it is today. That conclusion, Roy says, frees humanity from all spiritual

bondage. It strikes at the root of the religious mode of thought. It eliminates the necessity of faith.

According to Roy the classical idealistic conception of Philosophy has destroyed the zeal of religion but unfortunately it ended in some sort of fatalism. Tracing out the pre-Marxian philosophy, Roy noted that it was essentially fatalistic. According to it, man was a victim of his environments. He had no hand in shaping his surrounding environments. Above all, all he does and thinks is determined by it without his knowledge. That means, due to lack of scientific research, he thinks that the whole world is only a vast prison to him without an escape, ruled by God. Here, Roy notes that previously it was considered to be spirit and is now conceived of as matter. Taking the clue from the philosophy of Marxism has to how the environmental factors are influencing the human life, Roy consciously points out :

What Marx said was not propounded as a dogma, but in the light of scientific research he proved that man lives in certain environments, that his behaviour, his being and becoming is determined by these environments. But at the same time man reacts on those environments and shapes them by his reactions. He is not an actor on the stage walking over it, detached and untouched, a prescribed route. But he is a part of the stage itself. His movements are determined by his environments in as much as these include his own being. Thus he has become not only the maker and master of his environments including his own self, but he has become the maker of history. That is the essence of Marxism. .¹¹

In this Marxist phase, Roy felt that Marxism is a basic knowledge. He says that it can be true in all places. It can be limited by geographical boundaries. It cannot be said that it can be applied to certain countries only. Thus, according to him, Marxism is universal in its nature, action, and reaction. He thought that it throws much light on the history of human culture and civilisation. Even though he had made some critical suggestions here and there, Roy believed that Marxism is a new intellectual application in human history. He also points out that it should be evident that Marxism does not belong to any particular class. It means that

Marxian philosophy has universal character and is applicable in all countries without any boundaries or restriction. Hence, he remarks :

As a matter of fact, Marxism is the highest form, human knowledge has attained so far. It is based on the accumulated store of human experience, gathered ever since the dawn of civilisation. As such, it cannot be the property of any particular class. It is a human heritage. It is the highest form of philosophy.¹²

Philosophy, says Roy, particularly as conceived by Marxism, is not only an interpretation of the world, but also a guide for its reconstruction. So it concerns itself with the entire complex of the problems of society as well as of nature. He points out that Marx was the first materialist to recognise the objective reality of ideas. He said that once ideas are formed, once the process of ideation has taken place in human mind, ideas are as real as any other physical objects. He felt that it is true that the history of mankind is the history of philosophy. The clue to the history of mankind, that is, the governing law of social evolution will be found in the origin of ideas. Once an idea is formed, human behaviour and as development is dominated by this idea.¹³ The important fact of Marxism as shown by Roy is that Marx had showed that history is also a science to be investigated, requiring research. Just as in physical world nothing happens without a cause, similarly in history also everything that takes place is determined by a cause, is the result of previous events. There is nothing arbitrary in history. One of the fundamental principles of Marxism, Roy writes, is that everything happens only if there is an adequate cause. Man's activities, his will, his desires are determined by the social environments in which he lives.¹⁴ Thus Roy points out that Marxism is the philosophy for the future of the entire mankind. It is so, because it is the positive outcome of the entire part of Mankind.¹⁵

Roy had always maintained an open mind towards Marxian philosophy. He never lost his ideas and views in blind admiration. He has taken special interest to save Marxism from grooves; to him Marxism was not a closed system of philosophy but a way of thinking.¹⁶ He elevated it from a narrow and mechanical conception. He opposed the idea of making Marxism a religion. Marxism,

he says, being a scientific philosophy should not admit dogmatic ideas. The concept of making Marxism a religion or a semi-religion is opposed to the very idea of Marxist theory and philosophy¹⁷. Supporters of Marxism were not willing to refute the principles of Marxism in any aspect. But Roy was prepared even to refute Marxism and go beyond it if the conditions and circumstances so required. Hence he said :

Our existence, our environments, our very being must determine our thought. Books may be useful for an understanding of Marxism. But we have our being in a peculiar set of circumstances. Our Political consciousness and behaviour will be determined by these peculiar features of our social being.¹⁸

Roy never understood Marxism orthodoxically. His understanding of any thing was based on this own experience, reason and critical thinking. In the same way he understood Marxism also. From him we obtain an important deduction when he said that being precedes consciousness. According to him being is not determined by thought or consciousness, our consciousness is determined by our being. He was certain that experience should be the basis of any theory.¹⁹ We cannot act according to theories already pre-determined, whoever may be the theoretician, even as great as Karl Marx. Roy, therefore, never took Marxism as a finality. He points out that it should be based and sustained on human experience and must adjust to new lessons of experience. Roy therefore remarks :

Marxism is not the final truth; even its fundamental principle should be from time to time reexamined in the light of empirical evidence, and revised accordingly.²⁰

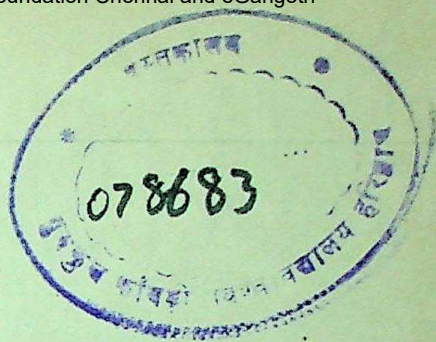
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NOTES

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4. *M. N. Roy and K. K. Sinha, Royism Explained*, pp. 11-12.
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13. M. N. Roy, *Heresies of 20th Century*, p. 136
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15. Cf. M. N. Roy, *Scientific Politics*, pp. 182-187
16. G. P. Bhattacharya, *M. N. Roy and Radical Humanism*, A. J. B. Wadia Publication, Bombay, 1961, p. 4.
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18. M. N. Roy, *New Orientation*, pp. 148-149.
19. G. P. Bhattacharya, *M. N. Roy and Radical Humanism*, p. 4.
20. M. N. Roy, *New Orientation*, p. 148.



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